符 号 说 明

1. 凡数据后有符号“*”，表示光栏位置或其值间有光栏。

2. 凡没有注明数值单位的，均以毫米为单位；若注明以英寸为单位，则在该镜头资料中均以英寸为单位。

3. 常用符号：

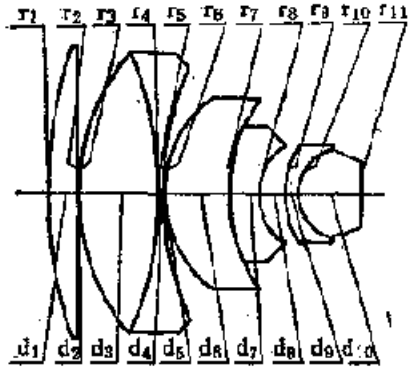
ΣS_1	球差系数和；
ΣS_2	彗差系数和；
ΣS_3	象散系数和；
ΣS_4	场曲系数和；
ΣS_5	畸变系数和；
LA'	球差；
$\Delta H'$	绝对畸变；
x'_t	细光束子午场曲；
x'_s	细光束弧矢场曲；
$x'_t-x'_s$	象散；
K'_{T1}	全口径的子午彗差；
$K'_{T0.7}$	0.707口径的子午彗差；
QP	相对畸变；
HI	理想象高；
E.F.L	焦距；
B.F.L	后截距；
FNo.	相对孔径倒数；
F.A.	视场角（有些资料中无F.A.数据，象差曲线是按F.A.=8°来计算的，可扩大容限）；
L'_p	入瞳距离；
η	物高；
ω	镜头视场。

VISIT…

编号：01-00-001

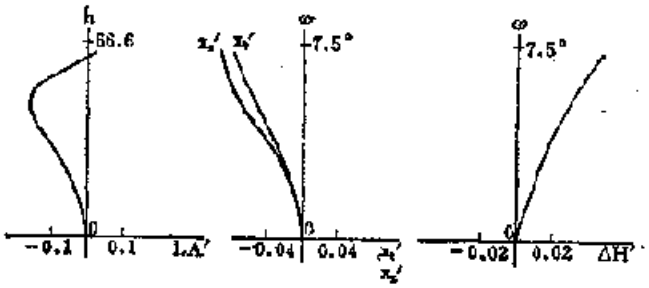
摄　影　物　镜

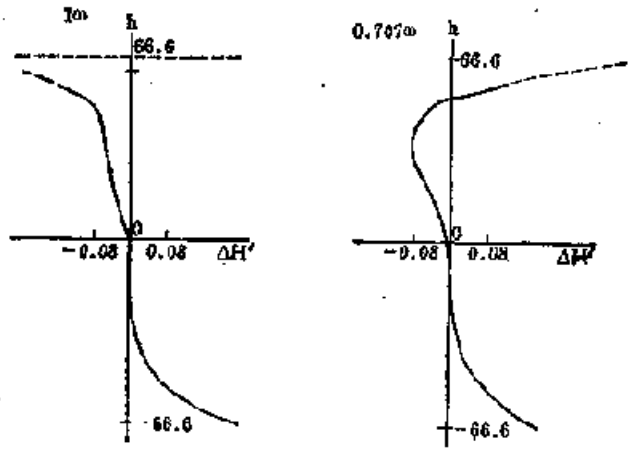
E. F. L＝100　　B. F. L＝7.12　　FNo. ＝0.75　　F. A. ＝±7.5'



序号	r	d	n	ν	序号	r	d	n	ν
1	206.0	14.5	1.6940	54.5	7	71.7	14.50	1.7343	28.4
2	8390.0	0.2			8	24.19	13.42		
3	98.95	36.4	1.6725	44.7	9	57.5	5.44	1.8241	36.1
4	−165.4	2.43	1.7343	28.4	10	21.70	30.0	1.7922	50.2
5	130.0	0.2			11	∞			
6	52.40	30.7	1.6940	54.5					

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.47	−0.15	0.0029	−0.38	0.12	13.15	0.34%
h 或 ω%	T.A'	ΔH'	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	0.01°	0.045	−0.079	−0.093	0.014	5.4	−0.0015
70	−0.16	0.028	−0.051	−0.075	0.024	0.67	−0.0094

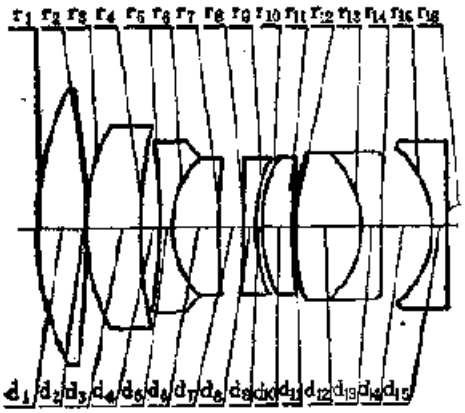




编号：01-00-002

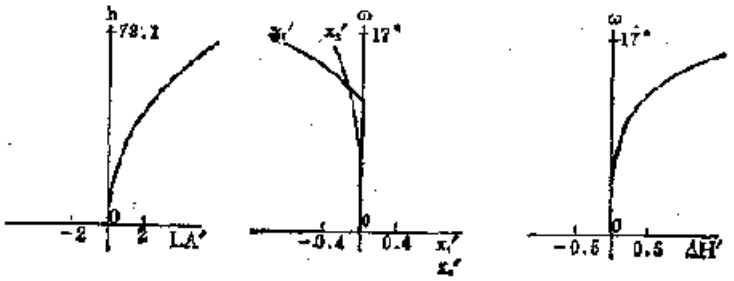
六组元大相对孔径摄影镜头

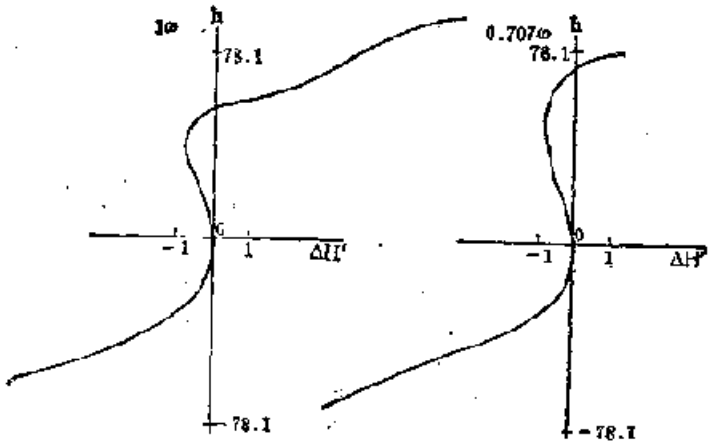
E.F.L＝125　　B.F.L＝　　FNo.＝0.80　　F.A.＝34°　　Lp_1'＝0



序号	r	d	n_d	ν	序号	r	d	n_d	ν
1	221.1	38.3	1.6204	59.8	9	115.7	6.1		
2	− 784.0	0.7			10	110.9	23.7	1.6242	47.0
3	143.2	42.2	1.6220	53.0	11	310.5	1.2		
4	570.9	10.1			12	137.0	50.4	1.6255	35.7
5	− 428.3	12.7	1.6728	32.2	13	− 74.7	14.2	1.7281	28.4
6	79.1	31.6	1.6202	60.3	14	7492.0	37.5		
7	481.3	17.6			15	− 72.1	11.0	1.5686	56.1
8	3913.0	11.7	1.6254	35.8	16	∞			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	3.6	−2.5	0.14	−0.39	0.78	38	4%
h或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	5.8	1.5	−0.86	−0.35	−0.50	7.6	−2.2
70	2.6	0.34	0.017	−0.14	0.15	−8.1	−2.9

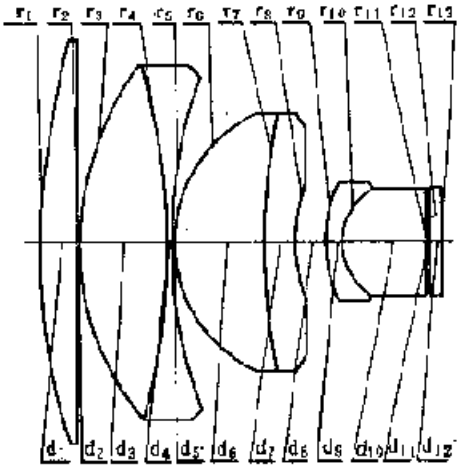




编号, 01-00-003

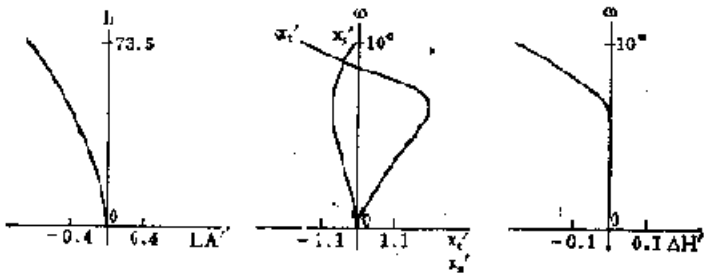
透　镜　系　统

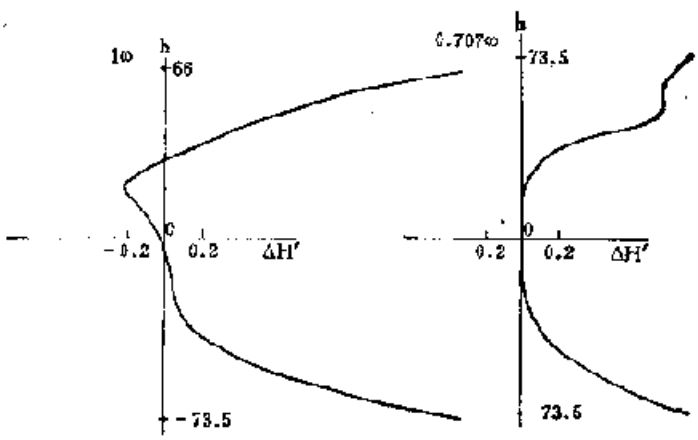
E. F. L＝100　　B. F. L＝　　FNo. ＝0.68　　F. A. ＝20°　　$Lp_1' = 0$



序号	r	d	n_e	ν_e	序号	r	d	n_e	ν_e
1	277.97	16.59	1.59424	58.02	8	27 21	13.19		
2	∞	0.34			9	64 25	7.45	1.58779	36.75
3	111.65	35.91	1.64129	55.15	10	26 67	34.04	1.84035	42.04
4	−274.08	3.62	1.67764	31.97	11	∞	1.20		
5	212.75	1.19			12	∞	5.11	1.50207	61.21
6	57.26	36.24	1.64514	57.70	13	∞			
7	274.08	13.79	1.72734	29.03					

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−1.2	0.050	0.22	−0.54	0.067	13	−1.4%
h或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	−0.85	−0.26	−0.16	−0.001	−0.15	5.5	3.7
70	−0.53	−0.0079	0.23	−0.077	0.278	7.9	0.59

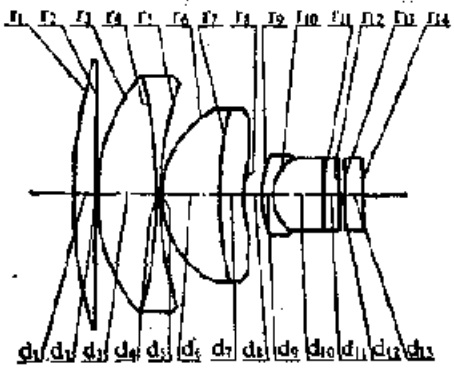




编号：01-00-004

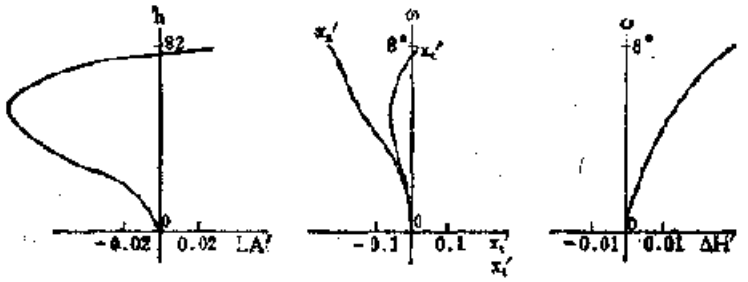
透　镜　系　统

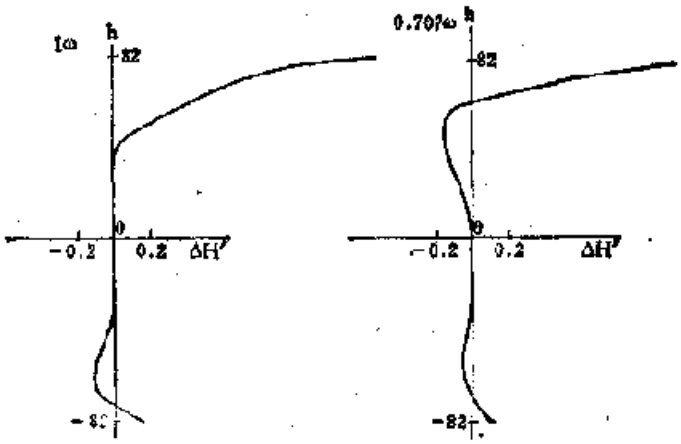
E. F. L＝100　　B. F. L＝　　FNo. ＝0.61　　F. A. ＝16°　　Lp_1'＝0



序号	r	d	n_e	ν_e	序号	r	d	n_e	ν_e
1	245.12	17.85	1.59424	58.02	8	29.80	13.05		
2	4460.43	0.37			9	65.97	8.12	1.62058	36.37
3	112.04	37.88	1.66152	50.59	10	29.47	20.17	1.92765	21.34
4	−456.43	3.51	1.73430	28.19	11	∞	9.13	1.79190	25.55
5	213.49	0.37			12	∞	1.61		
6	60.17	38.66	1.64304	59.85	13	∞	11.59	1.50207	61.21
7	294.69	13.69	1.76859	26.31	14	∞			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.52	−0.42	0.060	−0.54	0.068	14	0.21%
h或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.028	0.03	0.0079	−0.23	0.24	7.8	0.090
70	−0.08	0.014	−0.069	−0.15	0.08	1.6	−0.094

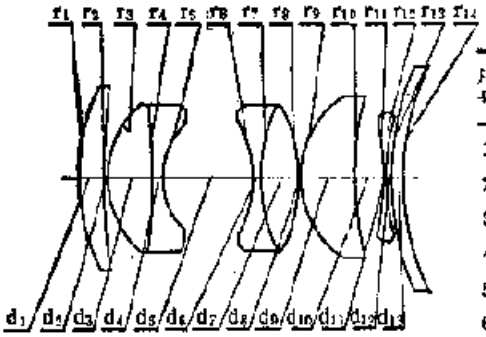




编号：01-00-005

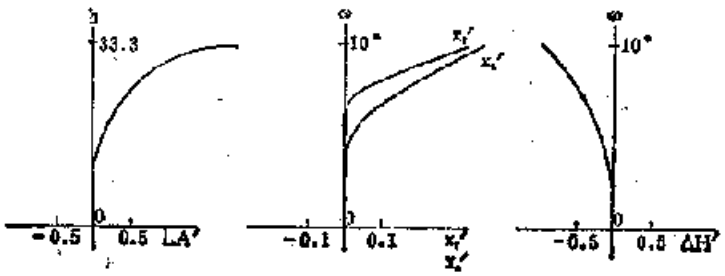
用于电子影象管的透镜系统

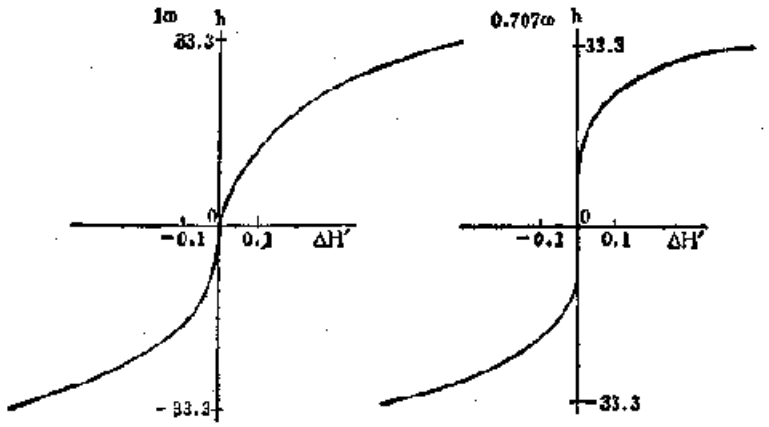
E. F. L＝100.0　　B. F. L＝　　FNo. ＝1.5　　F. A. ＝20°



序号	r	d	n	v	序号	r	d	n	v
1	73.0	14.0	1.694	54.6	8	−58.9	0.3		
2	410.0	0.3			9	41.1	23.8	1.673	47.0
3	44.4	17.9	1.694	54.6	10	132.3	12.55		
4	−170.0	4.8	1.813	25.3	11	−239.0	1.8	1.813	25.3
5	30.3	39.5			12	53.8	3.6		
6	− 59.3	4.3	1.678	32.0	13	111.5	5.4	1.512	63.1
7	55.5	18.2	1.694	54.6	14	105.3			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	0.062	−0.050	−0.042	0.084	−0.56	18.21	−5.5%
h或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_T	$K_{T(.7}$
100	2.03	−1.01	0.35	0.38	−0.029	−0.028	0.039
70	0.47	−0.33	0.033	0.14	−0.11	−0.21	−0.455



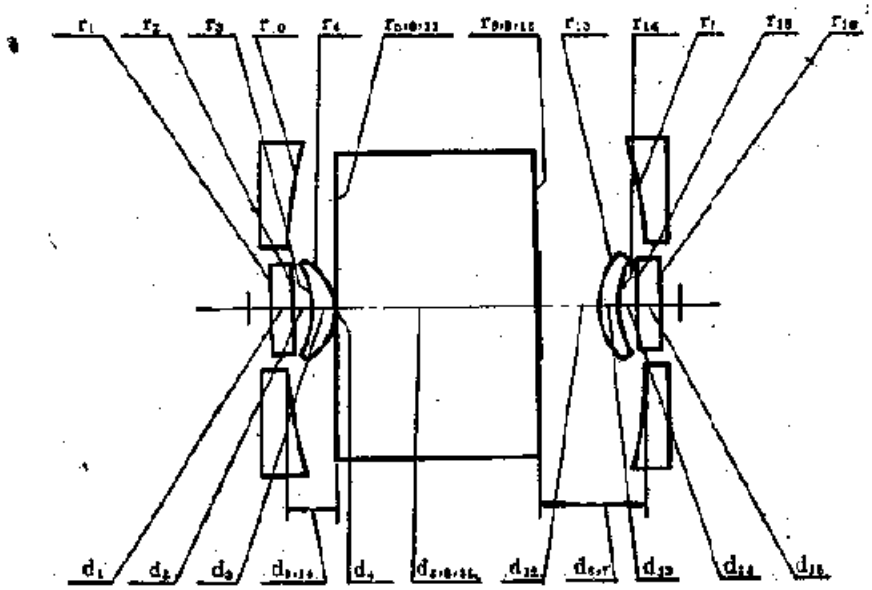


编号: 01-00-006

共轴光学系统的改进

E. F. L＝100.0　　B. F. L＝　　FNo. ＝0.7　　F. A. ＝

物点＝5.48　　象点＝5.48

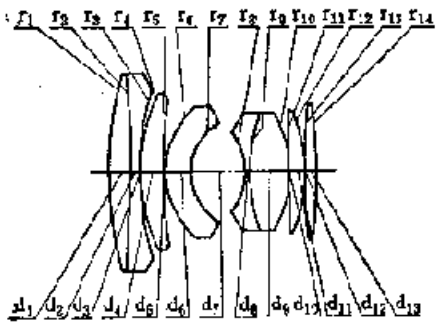


序　　号	r	d	n_d	ν
1	∞	10.40	1.503	51.0
2	∞	6.58		
3	－55.04	11.00	1.540	56.0
4	－ 27.52	0.76		
5	∞	93.33	1.603	38.0
6	∞	53.08		
7	－308.94	－ 53.08	－1.0	
8	∞	－ 93.33	－1.603	38.0
9	∞	－ 23.87	－1.0	
10	308.94	23.87		
11	∞	93.33	1.603	38.0
12	∞	29.97		
13	27.52	11.00	1.540	56.0
14	55.04	6.58		
15	∞	10.40	1.503	51.0
16	∞			

编号：01-00-007

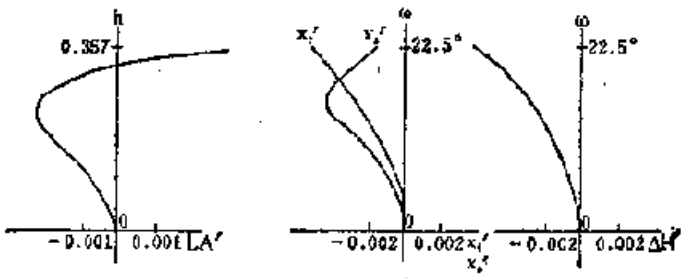
摄　影　物　镜

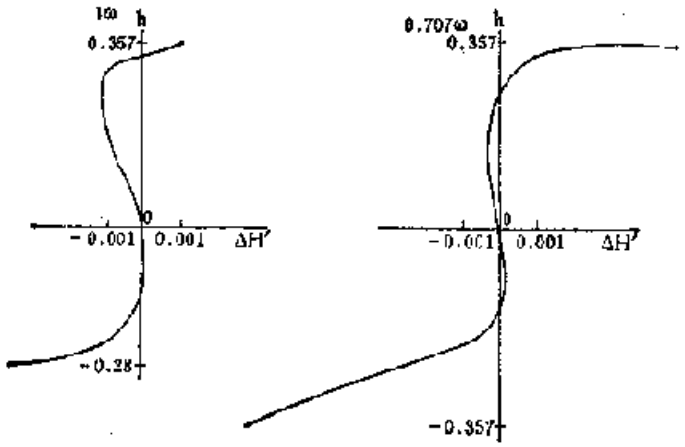
E. F. L=1.0　　B. F. L=0.675　　FNo. =1.4　　F. A. =±22.5°



序号	r	d	n_e	ν_e	序号	r	d	n_e	ν_e
1	2.11619	0.12629	1.78869	43.53	8	−0.39007	0.02870	1.81262	25.28
2	−6.13873	0.05741	1.72732	29.07	9	1.20731	0.21049	1.78869	43.53
3	1.30647	0.00191			10	−0.67409	0.00191		
4	0.93180	0.12246	1.78869	43.53	11	−8.18542	0.06889	1.78869	43.53
5	3.81787	0.00191			12	−0.87970	0.00096		
6	0.46701	0.15308	1.81262	25.28	13	3.03255	0.05697	1.78869	43.53
7	0.33301	0.26320			14	2.20972			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.0026	0.00118	0.00059	−0.0044	−0.0046	0.41	−1.4%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.0030	−0.0060	−0.0049	−0.00169	−0.0032	−0.014	−0.0025
70	−0.0023	−0.0025	−0.0026	−0.0045	0.0019	−0.011	−0.0011

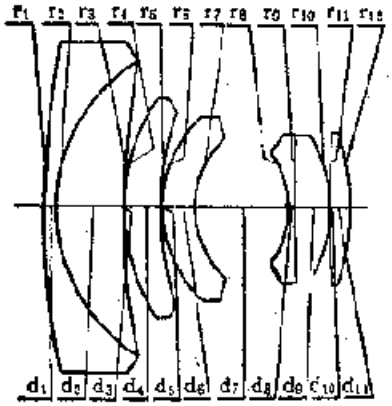




编号：01-00-008

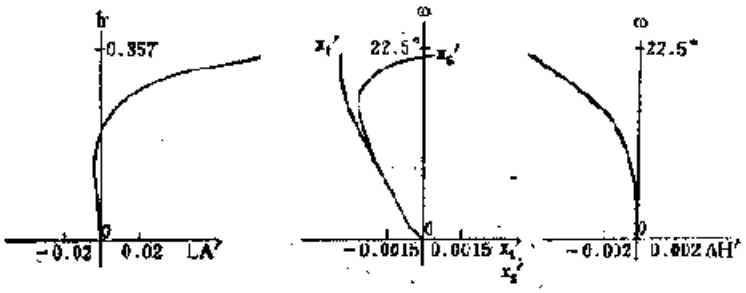
摄　影　物　镜

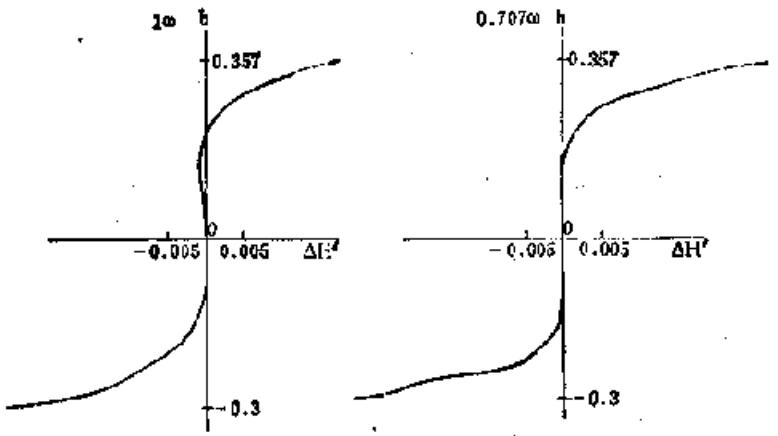
E. F. L＝1.0　　B. F. L＝0.675　　FNo. ＝1.4　　F. A. ＝±22.5°



序号	r	d	n_e	ν_e	序号	r	d	n_e	ν_e
1	2.28020	0.03454	1.55150	45.17	7	0.25407	0.26861		
2	0.47847	0.19570	1.62287	60.06	8	−0.26903	0.02878	1.76846	26.78
3	2.15280	0.00192			9	5.17978	0.09977	1.78869	43.53
4	0.62001	0.10467	1.66151	50.69	10	−0.35881	0.00096		
5	1.21085	0.00192			11	8.20741	0.05372	1.78869	43.53
6	0.34612	0.09689	1.72738	29.07	12	0.77466			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	.HI	QP(1ω)
	−0.0059	0.0013	0.000021	−0.0026	−0.0025	0.41	−1.4%
h 或 ω %	LA′	ΔH′	x_s'	x_t'	$x_t'-x_s'$	K_{T1}	$K_{TC.7}$
100	0.089	−0.0061	−0.0036	0.000037	−0.0036	−0.30	−0.013
70	0.0047	−0.0017	−0.0030	−0.0028	−0.00024	−0.23	−0.0056

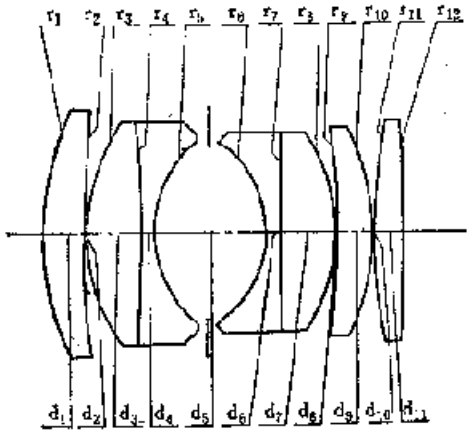




编号：01-00-009

双　高　斯　型

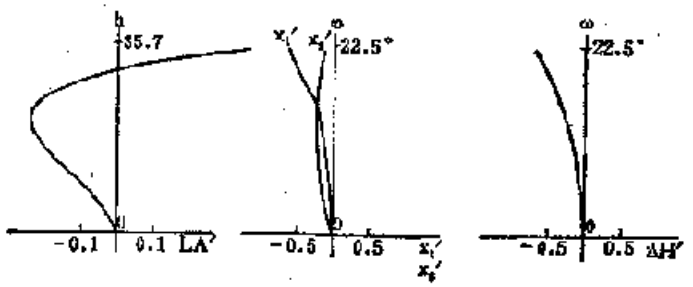
E. F. L＝100　　B. F. L＝71.06　　FNo. ＝1.4　　F. A. ＝±22.5°

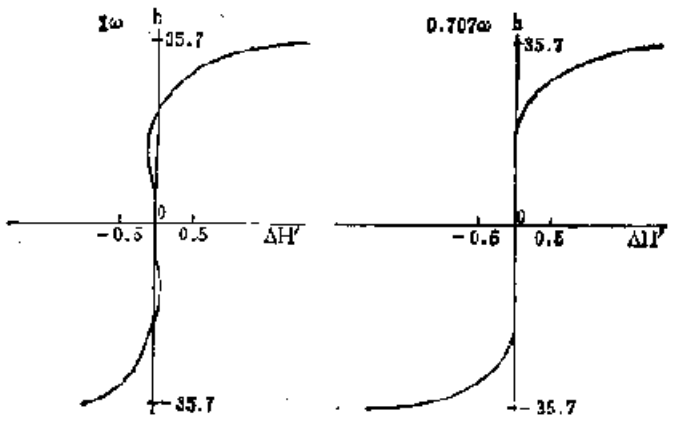


序号	r	d	n	ν	序号	r	d	n	ν
1	77.95	11.55	1.72342	37.9	7	577.29	15.18	1.734	51.3
2	263.05	0.19			8	− 46.53	0.35		
3	52.07	15.78	1.72342	37.9	9	−216.04	9.61	1.66672	48 3
4	−327.13	3.46	1.71736	29.5	10	− 61.27	0.19		
5	31.13	31.67*			11	156.14	7.04	1.66672	48.3
6	− 29.94	3.66	1.71736	29 5	12	−657.55			

31.67* = 15.21 + 16.46

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HJ	QP(1ω)
	− 0.311	0.327	0.070	− 0.268	− 0.477	41.432	− 1.675
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.372	− 0.695	− 0.681	− 0.092	− 0.588	0.515	0.019
70	− 0.244	− 0.255	− 0.179	− 0.237	− 0.057	− 0.041	0.011

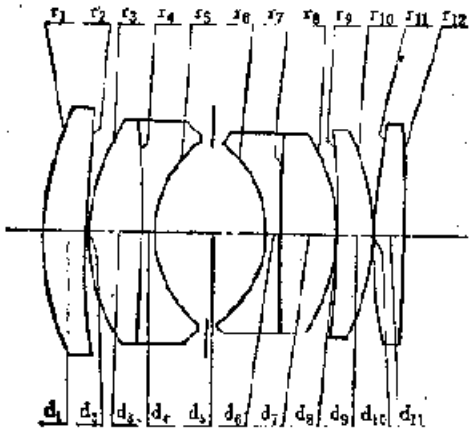




编号：01-00-010

双　高　斯　型

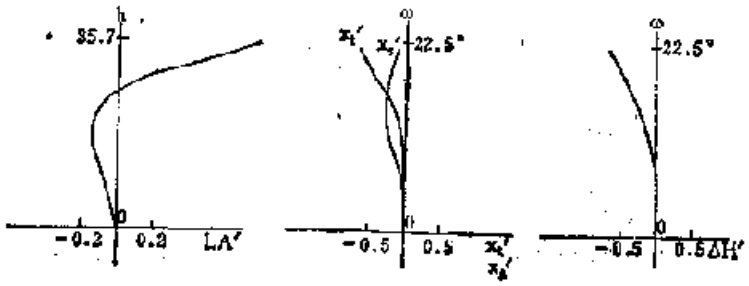
E. F. L＝100　　B. F. L＝73.42　　FNo. ＝1.4　　F. A. ＝±22.5°

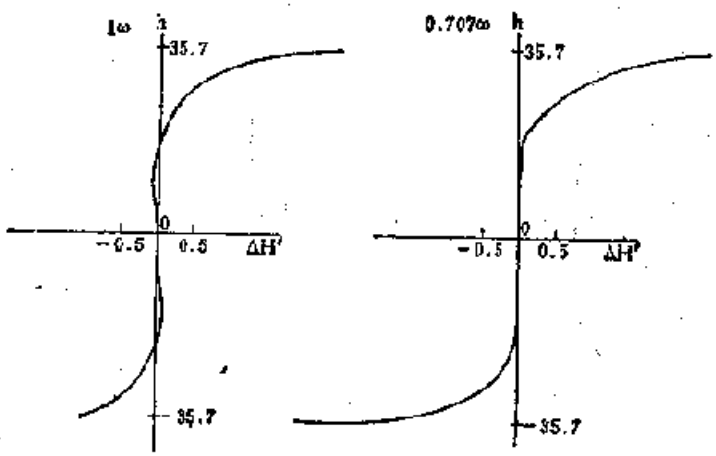


序号	r	d	n	ν	序号	r	d	n	ν
1	79.15	11.93	1.72342	37.9	7	1169±2	15.03	1.734	51.3
2	200.8	0.17			8	− 48.57	0.36		
3	52.47	15.01	1.70154	41.1	9	−248.0	8.81	1.6935	50.7
4	−383.0	4.08	1.68893	31.0	10	− 62.62	0.17		
5	31.1	30.41*			11	204.7	6.32	1.6935	50.7
6	− 30.43	4.04	1.71736	29.5	12	−429.9			

30.41* = 15.21 − 15.20

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.262	0.103	0.045	−0.239	−0.498	41.722	−1.731
h或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.837	−0.722	−0.654	0.007	−0.662	0.55	0.080
70	−0.075	−0.268	−0.186	+0.199	0.013	−0.008	0.100

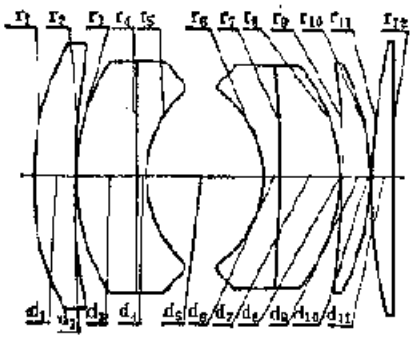




编号：01-00-011

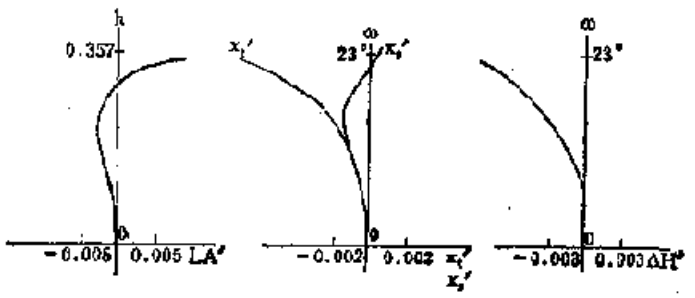
大孔径长工作截距摄影镜头

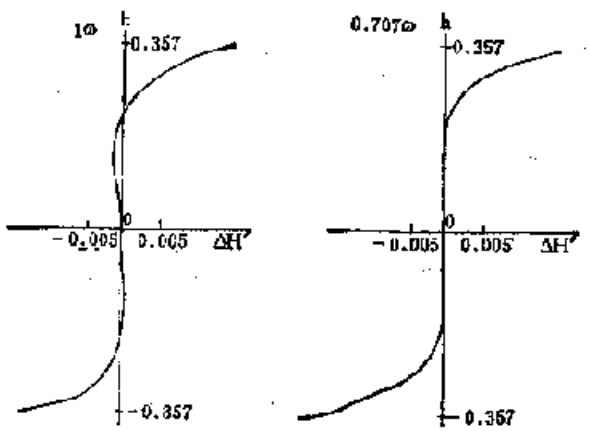
E. F. L＝1　　B. F. L＝0.75　　FNo. ＝1.4　　F. A. ＝＋28°



序号	r	d	n	v	序号	r	d	n	v
1	0.7655	0.1260	1.66446	35.9	7	−3.8760	0.1647	1.71300	53.9
2	2.5053	0.0019			8	−0.4535	0.0039		
3	0.5736	0.1686	1.69350	53.4	9	−2.3256	0.0853	1.67790	55.5
4	12.4041	0.0329	1.64831	33.8	10	−0.9357	0.0019		
5	0.3240	0.3256			11	1.5504	0.0620	1.71300	53.9
6	−0.2892	0.0407	1.69895	30.1	12	−15.8774			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	PC(1ω)
	−0.0030	0.00013	0.00052	−0.0021	−0.0057	0.42	−2%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.0033	−0.0085	−0.0073	0.00079	−0.0080	0.0019	0.000074
70	−0.0027	−0.0031	−0.0020	−0.00159	−0.00040	−0.0073	−0.00061

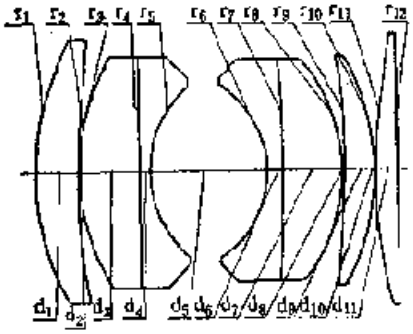




编号：01-00-012

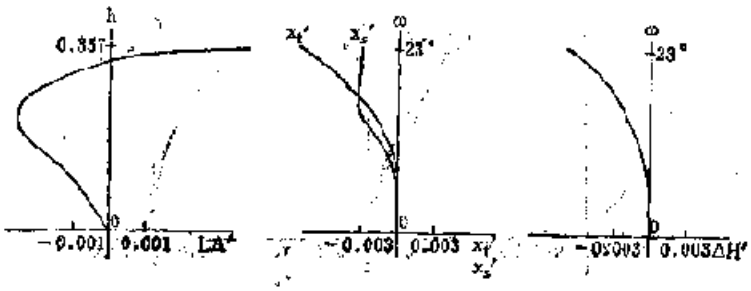
大孔径长工作截距摄影镜头

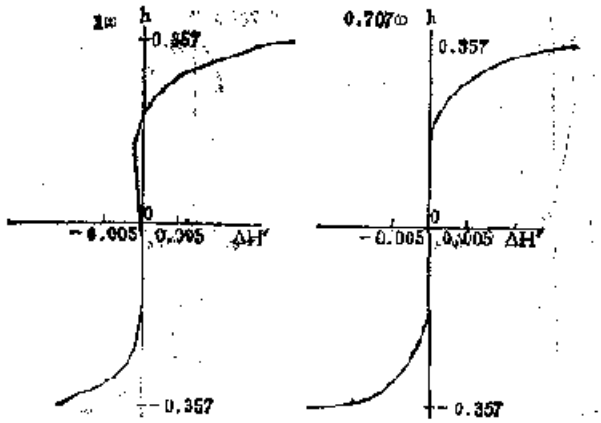
E. F. L＝1　　B. F. L＝0.7442　　FNo. ＝1.4　　F. A. ＝±23°



序号	r	d	n	ν	序号	r	d	n	ν
1	0.8140	0.0930	1.7495	35.0	7	−8.5727	0.1647	1.6779	55.5
2	2.0512	0.0019			8	−0.4953	0.0058		
3	0.5620	0.1202	1.744	44.9	9	−2.3256	0.0969	1.713	53.9
4	2.7132	0.0659	1.69895	30.1	10	−0.6610	0.0019		
5	0.3341	0.3333			11	1.5891	0.0620	1.713	53.9
6	−0.3227	0.0465	1.71736	29.5	12	−8.9028			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.0031	0.00025	0.00076	−0.0032	−0.0050	0.42	−1.5%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T_1}	$K_{T0.7}$
100	0.0043	−0.0067	−0.0084	−0.0031	−0.0053	0.0056	0.00011
70	−0.0027	−0.0026	−0.0036	−0.0035	0.00089	0.0016	0.00035

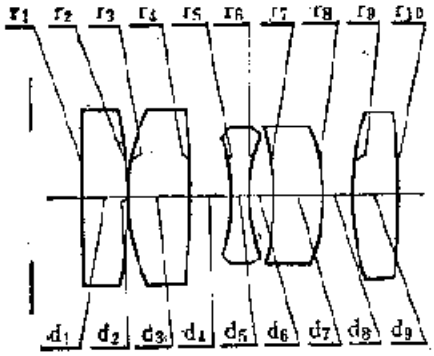




编号：01-00-013

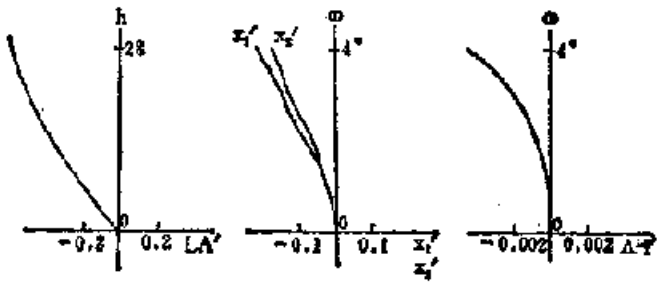
摄影或电影摄影物镜

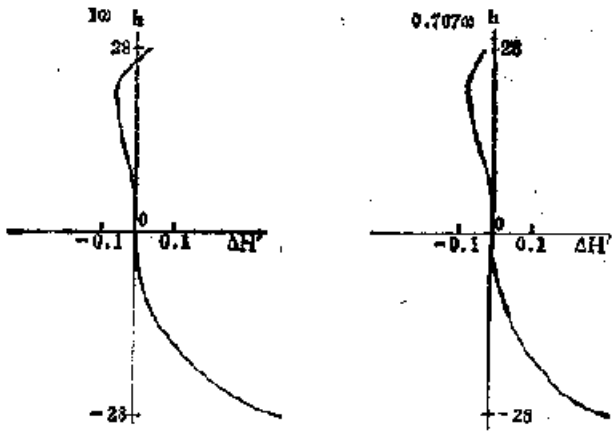
E. F. L＝100　　B. F. L＝44.7　　FNo. ＝1.8　　F. A. ＝8°　　Lp_1'＝－18.9



序号	r	d	n	ν	序号	r	d	n	ν
		18.9*			6	66.61	7.5		
1	∞	15.1	1.62	58.9	7	－156.36	19.6	1.66	57.9
2	230.34	1.5			8	－ 62.21	11.7		
3	81.00	23.4	1.70	56.0	9	125.61	17.7	1.71	54.0
4	－368.11	14.6			10	－301.34			
5	－ 82.12	8.3	1.76	28.0					

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	－0.15	0.0073	－0.0032	－0.025	－0.0025	7.0	－0.065%
h或ω%	LA′	ΔH′	x_c'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	－0.61	－0.0045	－0.22	－0.18	－0.040	0.20	0.055
70	－0.41	－0.0016	－0.11	0.09	－0.020	0.13	0.036

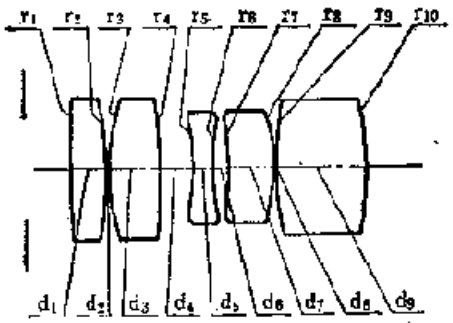




编号：01-00-014

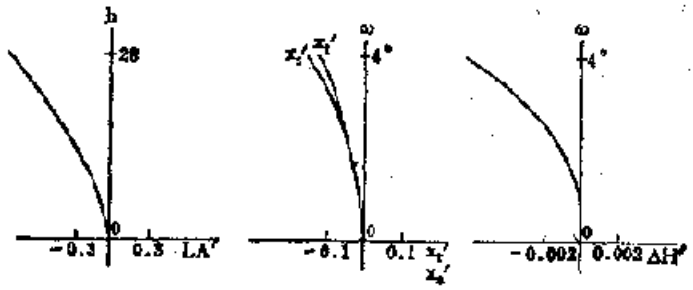
摄影或电影摄影物镜

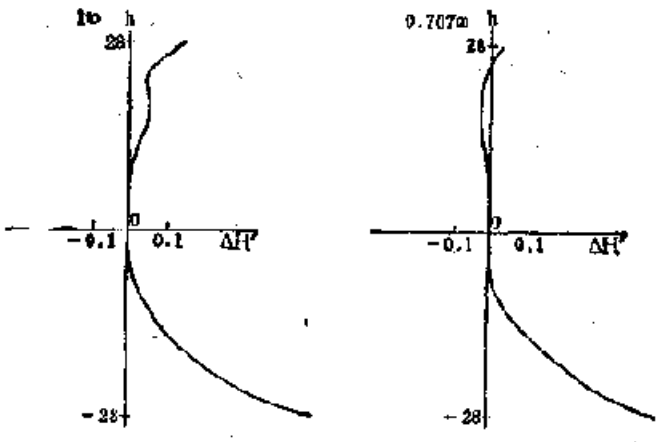
E. F. L＝100　　B. F. L＝46.2　　FNo. ＝1.8　　F. A. ＝8°　　Lp_1'＝－19.1



序号	r	d	n	ν	序号	r	d	n	ν
	∞	19.1*			6	98.83	7.6		
1	∞	15.3	1.62	58.0	7	－161.47	19.9	1.66	57.0
2	－233.41	1.5			8	－ 70.75	1.5		
3	91.72	23.7	1.70	56.0	9	149.80	38.2	1.71	54.0
4	－245.34	14.1			10	－134.70			
5	－ 83.21	8.4	1.76	28.0					

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP (1 ω)
	－0.18	0.029	0.0018	－0.025	－0.0036	7	－0.093%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	－0.82	－0.0065	－0.13	－0.15	0.019	0.35	0.12
70	－0.52	－0.0023	－0.057	－0.077	0.0092	0.24	0.084

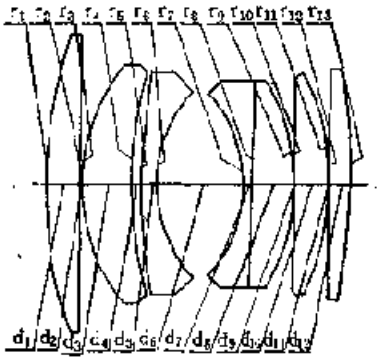




编号：01-00-015

高斯型摄影物镜

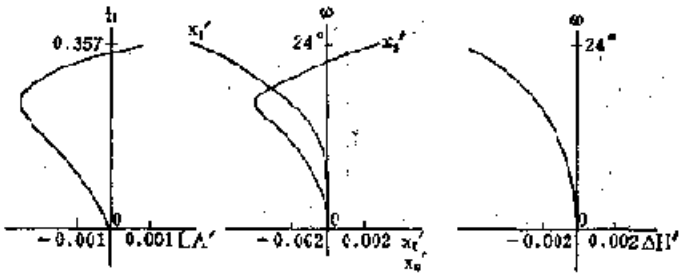
E. F. L＝1.0　　B. F. L＝0.6959　　FNo. ＝1.4　　F. A. ＝±24°

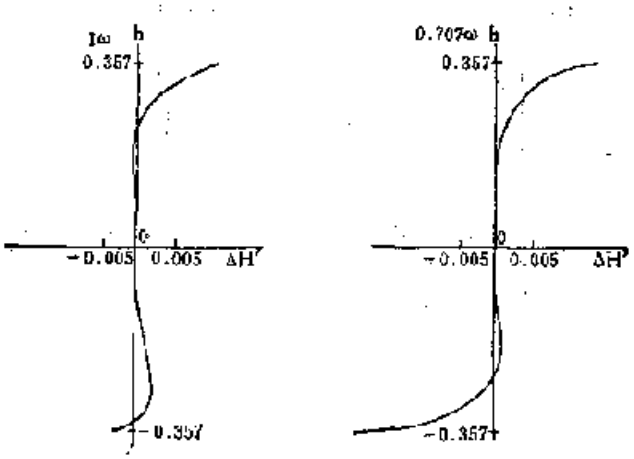


序号	r	d	n_e	ν	序号	r	d	n_e	ν
1	1.15720	0.1044	1.72055	47.69	8	− 7.84738	0.1149	1.78868	43.62
2	−76.27345	0.0019			9	− 0.57576	0.0010		
3	0.51319	0.1369	1.78868	43.62	10	−12.43738	0.0929	1.74795	44.49
4	0.98070	0.0306			11	− 0.72012	0.0010		
5	1.75657	0.0440	1.72311	29.30	12	9.06032	0.0565	1.74795	44.49
6	0.35550	0.2346			13	− 1.73148			
7	− 0.36599	0.0287	1.79180	25.00					

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	− 0.0028	0.00045	0.0011	− 0.0050	− 0.0044	0.44	− 1.3%

h 或 ω %	$\Delta A'$	$\Delta H'$	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.00097	− 0.0060	− 0.0077	0.0029	− 0.010	0.0052	0.0020
70	− 0.0025	− 0.0025	− 0.0020	− 0.0040	0.00199	− 0.0027	0.00062

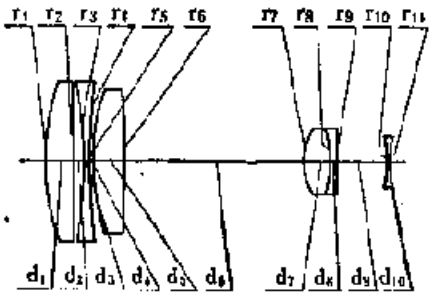




编号：01-00-016

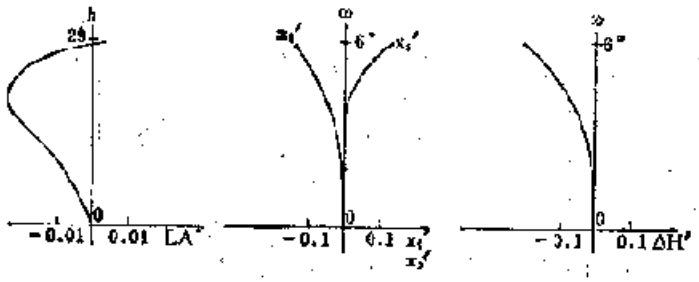
改进的珀兹伐物镜系统

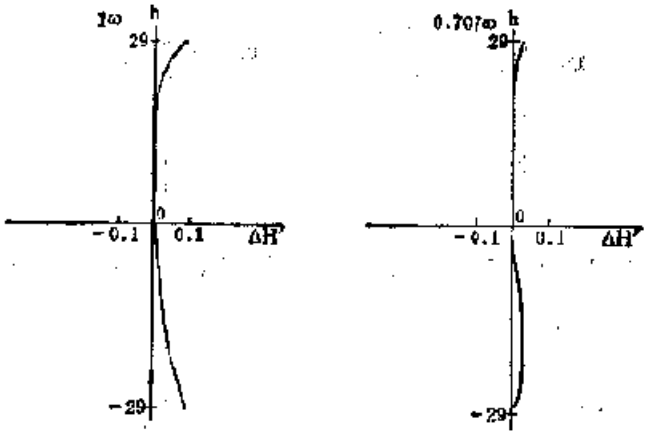
E. F. L＝100　　B. F. L＝　　FNo. ＝1.7　　F. A.＝12°



序号	r	d	n	ν	序号	r	d	n	ν
1	100.2	13.4	1.605	60.4	7	35.65	10.3	1.625	56.5
2	4070	4.26			8	−57.7	2.71	1.702	38.3
3	−196.2	4.57	1.792	25.9	9	201.5	21.8		
4	498.5	1.3			10	−72.2	1.55	1.813	25.2
5	112.0	13.7	1.625	56.6	11	64.7			
6	3190	80.5							

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.015	−0.00026	−0.0117	0.0095	−0.11	10.53	−1.9%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{Tc.T}'$
100	0.0030	−0.20	−0.13	0.013	−0.14	0.077	0.037
70	−0.024	−0.071	−0.071	0.000029	−0.071	0.015	0.0096

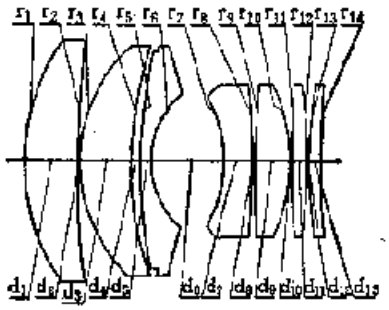




编号：01-00-017

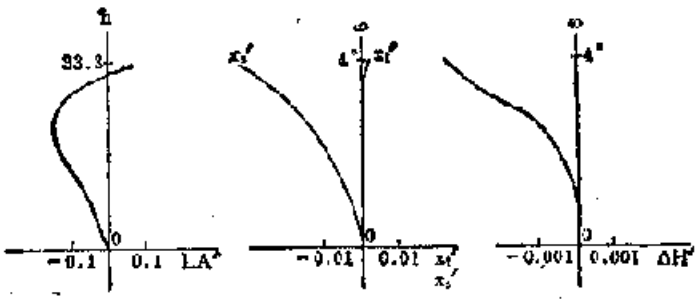
摄　影　镜　头

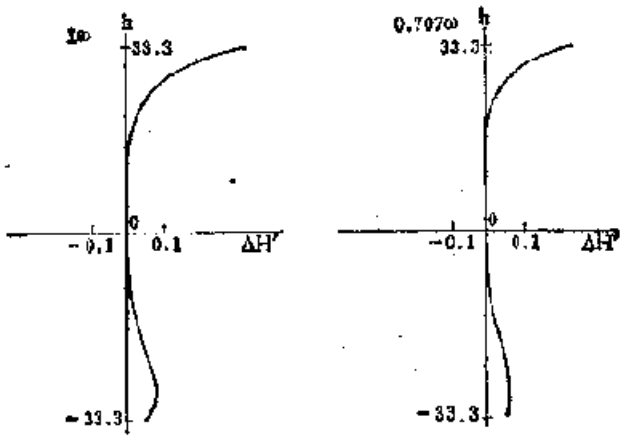
E. F. L＝100.0　　B. F. L＝　　FNo. ＝1.5　　F. A. ＝8°



序号	r	d	n_d	ν_d	序号	r	d	n_d	ν_d
1	61.02	15.2	1.677	55.5	8	−252.98	1.1		
2	331.2	0.07			9	482.13	9.9	1.6770	55.5
3	42.13	14.1	1.677	55.5	10	−52.31	0.1		
4	94.96	2.8			11	260.23	4.8	1.6476	41.9
5	166.14	3.4	1.699	30.1	12	−128.78	0.07		
6	25.03	20.4			13	134.14	4.0	1.6068	33.1
7	−37.40	7.1	1.7215	29.3	14	316.45			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	III	QP(1ω)
	−0.139	0.019	0.0039	−0.011	0.0023	7.0	−0.052%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.065	−0.0036	0.00139	−0.033	0.034	0.20	0.055
70	−0.15	−0.0012	0.00059	−0.0169	0.017	0.14	0.039

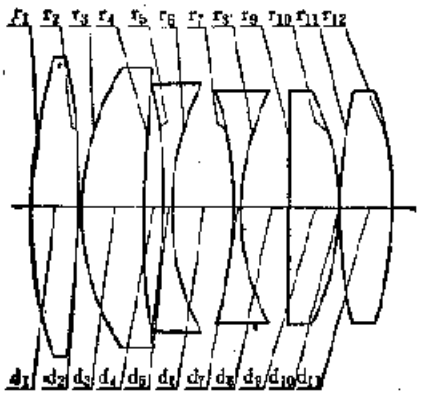




编号：01-00-018

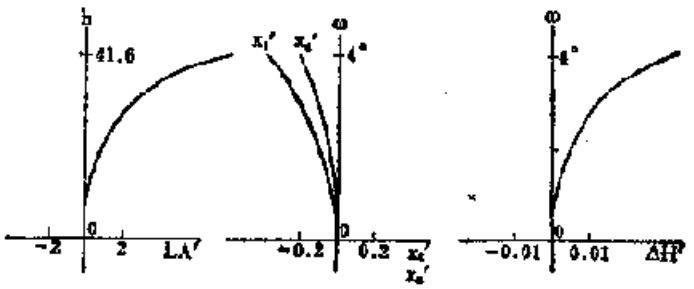
光　学　物　镜

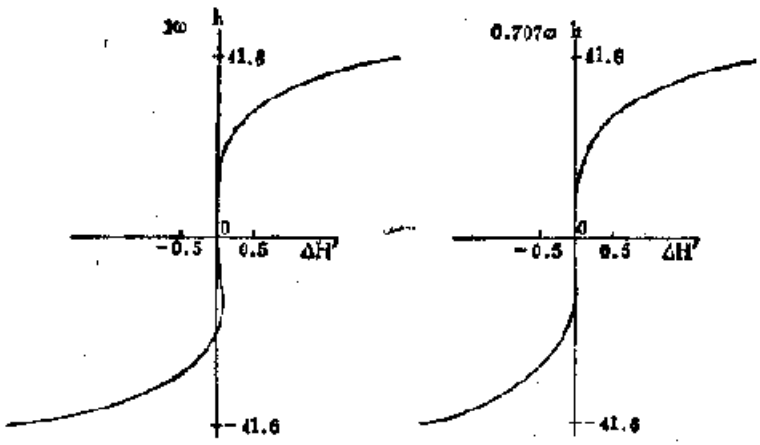
E. F. L＝100　　B. F. L＝53.32　　FNo. ＝1.2　　F. A. ＝6°　　$L_{p'_8}$＝7



序号	r	d	n_D	v	序号	r	d	n_D	v
1	140.90	18.32	1.6906	54.00	7	−107.09	2.82	1.6985	30.2
2	−248.94	0.35			8	73.62	13.39		
3	70.45	18.32	1.6906	54.00	9	462.87	14.09	1.6909	54.8
4	281.81	5.78			10	−73.27	0.35		
5	−176.13	2.82	1.6985	30.2	11	160.00	14.09	1.6909	54.8
6	75.81	17.61			12	−103.99			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	0.73	0.051	−0.026	−0.039	0.026	7.4	0.46%
h 或 ω%	LA′	ΔH′	x'_t	x'_s	$x'_t - x'_s$	K'_{T1}	$K'_{T0.7}$
100	8.7	0.03	−0.40	−0.21	−0.18	−0.44	0.065
70	2.1	0.012	−0.19	−0.10	−0.089	−0.34	0.037

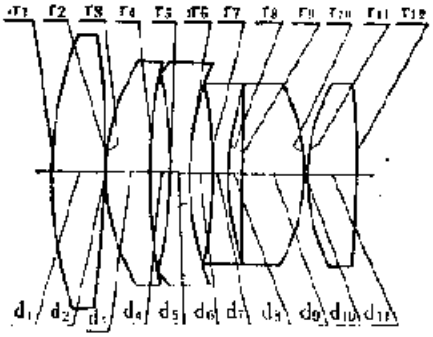




编号：01-00-019

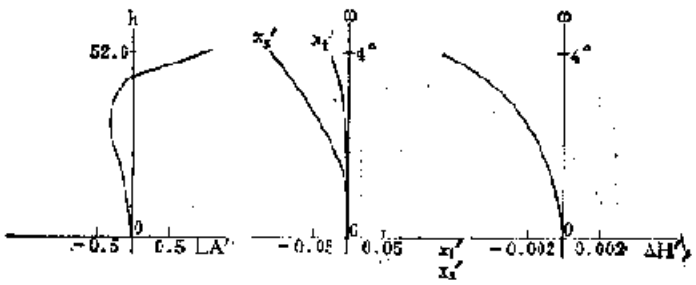
光　学　物　镜

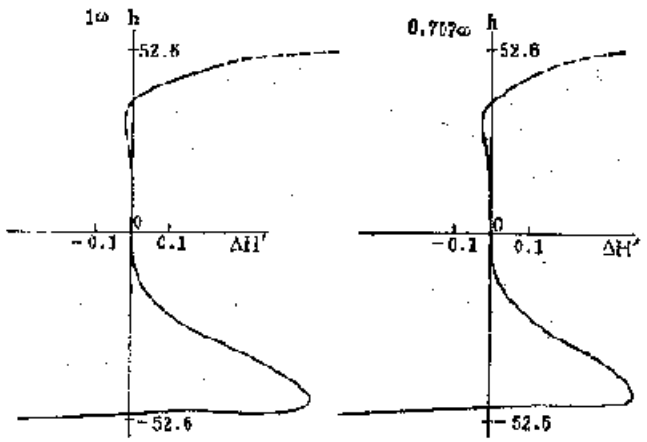
E. F. L＝100　　B. F. L＝54.14　　FNo. ＝0.95　　F. A. ＝8°　　Lp'_8＝2.5



序号	r	d	n_D	v	序号	r	d	n_D	v
1	210.63	21.91	1.7439	44.9	7	−302.07	8.80	1.7877	25.5
2	−585.34	0.91			8	125.41	5.61		
3	91.74	21.91	1.7129	53.8	9	572.45	28.05	1.6966	55.8
4	368.19	8.49			10	−86.44	0.91		
5	−200.17	8.80	1.7877	25.5	11	86.44	20.17	1.6966	55.8
6	122.07	10.24			12	−505.57			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.56	0.037	0.024	−0.086	−0.0070	7	−0.097%
h 或 ω %	LA′	ΔH′	x'_t	x'_s	$x'_t - x'_s$	K'_{T1}	$K'_{T0.7}$
100	1.1	−0.0068	−0.022	−0.109	0.087	0.26	0.19
70	−0.34	−0.0024	−0.011	−0.055	0.044	0.19	0.13

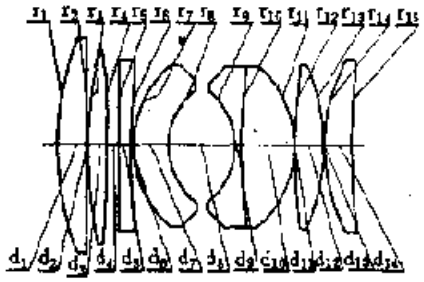




编号：01-00-020

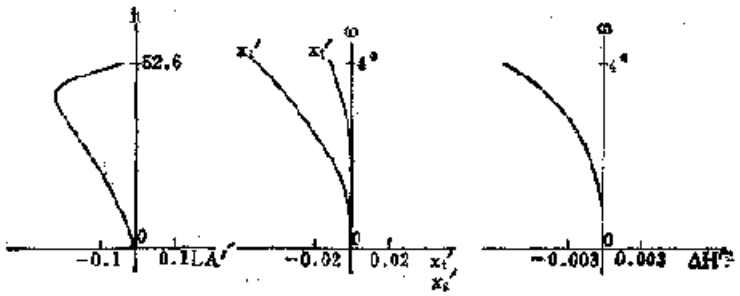
高速摄影机物镜

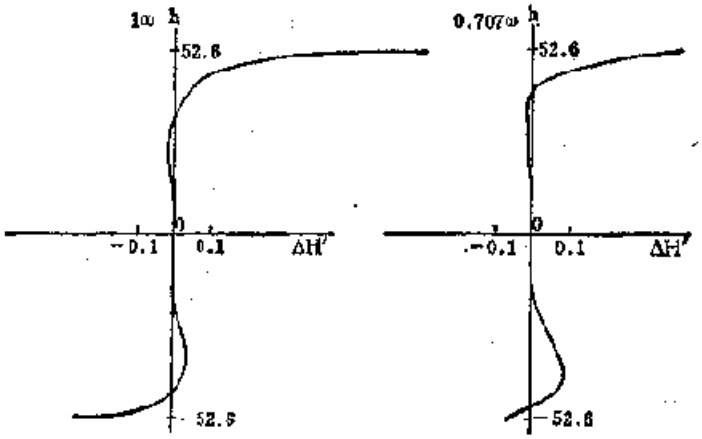
E. F. L＝100　　B. F. L＝60.64　　FNo. ＝0.95　　F. A. ＝8°



序号	r	d	n_e	ν_e	序号	r	d	n_e	ν_e
1	159.55	16.35	1.62287	60.1	9	－39.25	4.48	1.76846	26.8
2	3663.75	0.19			10	478.43	28.42	1.71615	53.7
3	229.09	10.32	1.60104	57.1	11	－57.62	0.19		
4	607.77	6.23			12	317.71	17.52	1.59142	61.0
5	∞	8.37	1.58482	40.6	13	－116.66	0.19		
6	597.26	0.19			14	94.69	16.53	1.69400	54.6
7	57.82	20.65	1.79180	25.9	15	509.65			
8	39.05	36.21							

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	－0.35	0.023	0.011	－0.042	－0.0086	7.0	－0.11%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K'_{T1}	$K'_{T0.7}$
100	－0.048	－0.0032	－0.013	－0.054	0.040	0.22	0.041
70	－0.21	－0.0029	－0.0065	－0.027	0.020	0.17	0.029

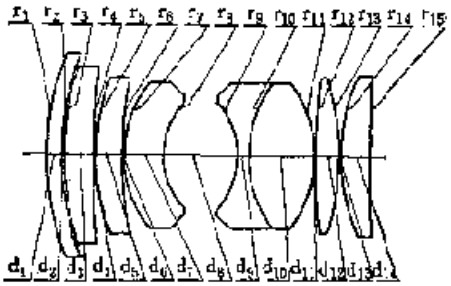




编号：01-00-021

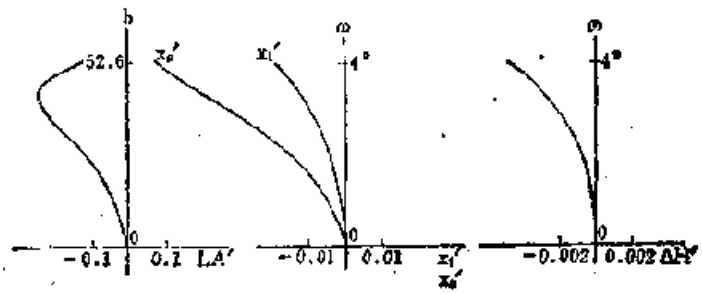
高速摄影机物镜

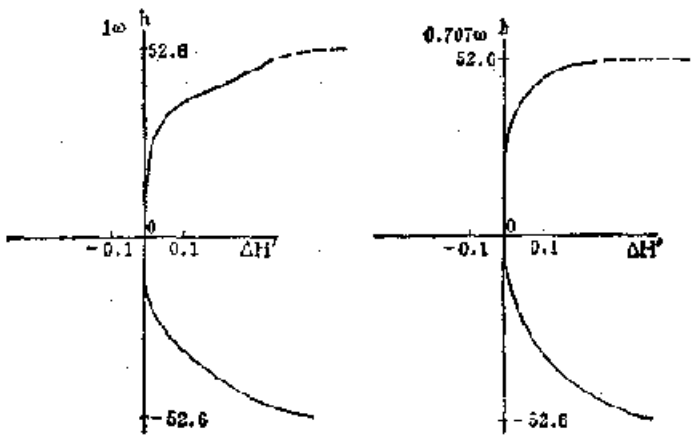
E. F. L＝100　　B. F. L＝57.28　　FNo. ＝0.95　　F. A. ＝8°



序号	r	d	n_e	ν_e	序号	r	d	n_e	ν_e
1	142.70	8.72	1.67245	44.7	9	−44.42	6.10	1.74703	27.8
2	130.17	0.44			10	71.19	37.93	1.73692	50.8
3	139.32	17.44	1.62541	56.6	11	−71.19	0.44		
4	540.20	0.44			12	399.09	12.08	1.71615	53.7
5	114.51	15.69	1.62287	60.1	13	−149.56	0.44		
6	282.61	0.44			14	94.64	15.69	1.71615	53.7
7	66.70	20.92	1.74703	27.8	15	649.26			
8	39.28	40.54							

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.26	0.034	0.010	−0.042	−0.0052	7.0	−0.070%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T_1}	$K_{T0.7}$
100	−0.15	−0.0049	−0.018	0.057	0.038	0.71	0.12
70	−0.21	−0.0017	−0.0050	0.028	0.019	0.49	0.085

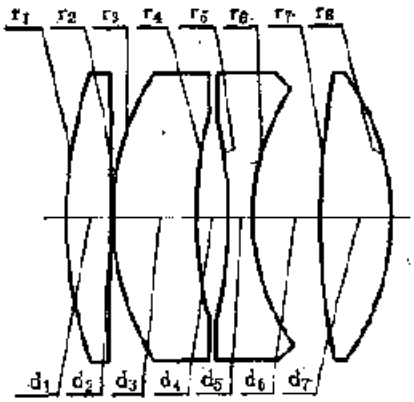




编号: 01-00-022

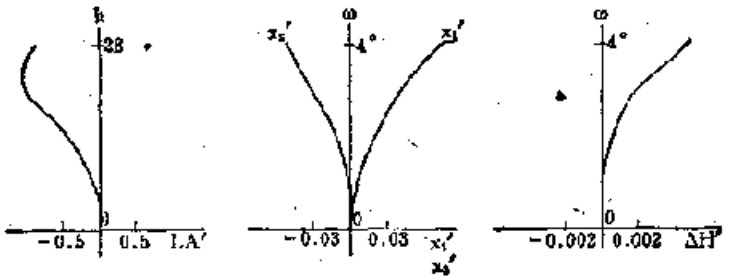
用于电影摄影的大孔径物镜

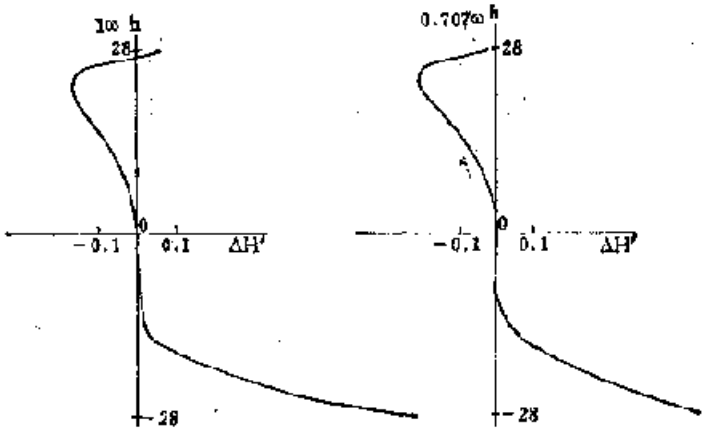
E. F. L＝100　　B. F. L＝　　FNo. ＝1.8　　F. A. ＝8°



序号	r	d	n_d	ν	序号	r	d	n_d	ν
1	89.19	8.95	1.61375	56.3	5	−97.66	5.16	1.71736	29.5
2	−521.30	0.09			6	42.24	12.39		
3	51.25	15.48	1.62041	60.3	7	173.49	12.39	1.62041	60.3
4	96.35	5.51			8	−45.47			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	$\Sigma P(1\omega)$
	−0.26	−0.036	0.010	−0.018	0.0027	7.0	0.071%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	−0.93	0.0049	0.079	−0.052	0.13	0.42	0.01
70	−0.89	0.0017	0.039	−0.026	0.066	0.29	0.0087

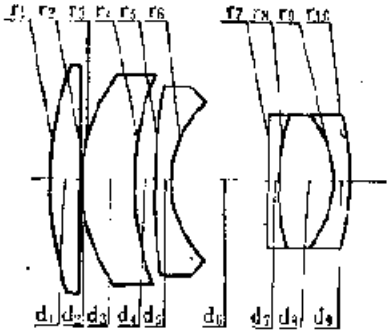




编号：01-00-023

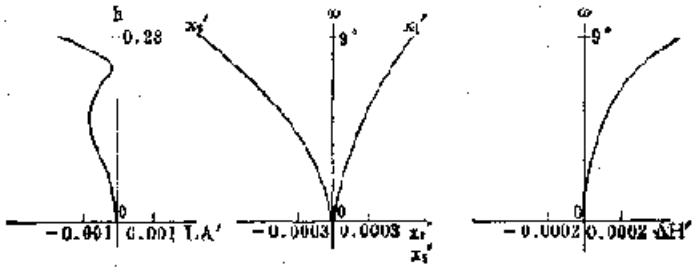
摄　影　物　镜

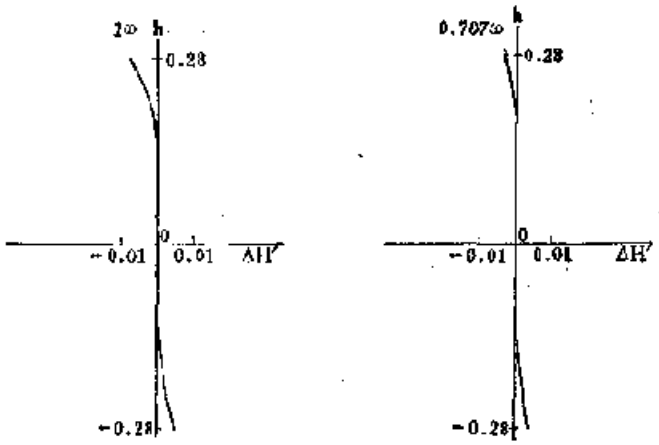
E. F. L＝1.0　　B. F. L＝0.501　　FNo. ＝1.8　　F. A. ＝18°



序号	r	d	n_d	ν	序号	r	d	n_d	ν
1	0.72	0.0706	1.6031	65.6	6	0.2355	0.2134		
2	∞	0.002			7	12.61	0.0222	1.57492	41.5
3	0.3782	0.1275	1.75496	53.4	8	0.5492	0.1242	1.68609	53.5
4	0.6996	0.0456			9	−0.2136	0.0315	1.62039	60.35
5	1.733	0.0395	1.71749	29.55	10	−0.8032			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00086	−0.000080	0.00016	−0.00039	0.00031	0.16	0.34%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	−0.0016	0.00054	0.000648	−0.0011	0.0017	−0.0018	0.000057
70	−0.00071	0.00019	0.00024	−0.00064	0.00089	−0.00048	0.000099

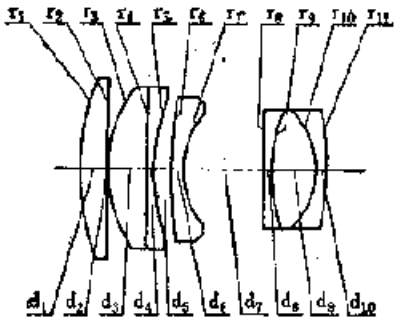




编号：01-00-024

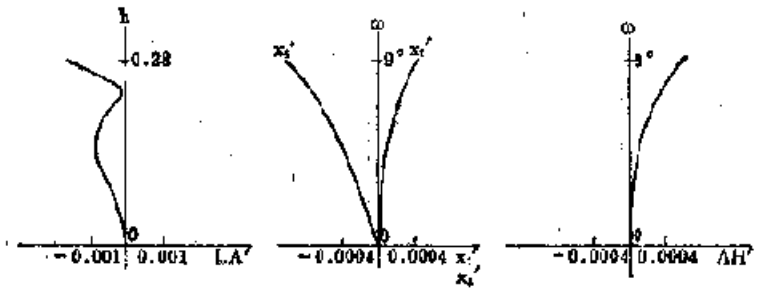
摄　影　物　镜

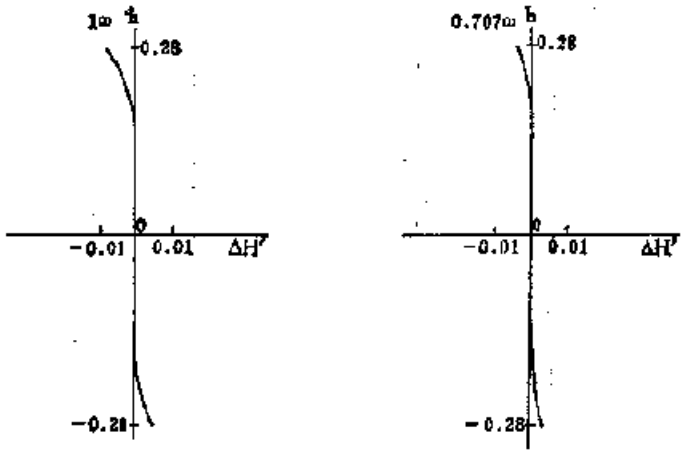
E. F. L＝1.0　　B. F. L＝0.501　　FNo. ＝1.8　　F. A. ＝18°



序号	r	d	n_d	v	序号	r	d	n_d	v
1	0.7431	0.0706	1.61720	54.04	7	0.2348	0.2193		
2	∞	0.002			8	13.83	0.0222	1.57492	41.5
3	0.3768	0.1073	1.74400	44.9	9	0.5524	0.1242	1.68609	53.5
4	∞	0.0202	1.72151	29.28	10	−0.2136	0.0298	1.62039	60.35
5	0.6754	0.0456			11	−0.8193			
6	1.898	0.0395	1.68893	31.15					

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00083	−0.000077	0.00014	−0.00035	0.000329	0.15	0.36%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	−0.00359	0.00057	0.00040	−0.0010	0.0014	−0.0016	0.000089
70	−0.00065	0.00020	0.00021	−0.00000	0.00081	−0.00035	0.00011

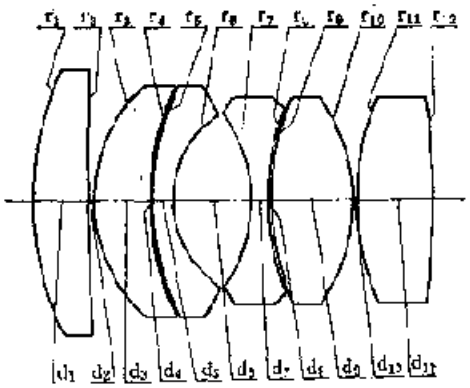




编号：01-00-025

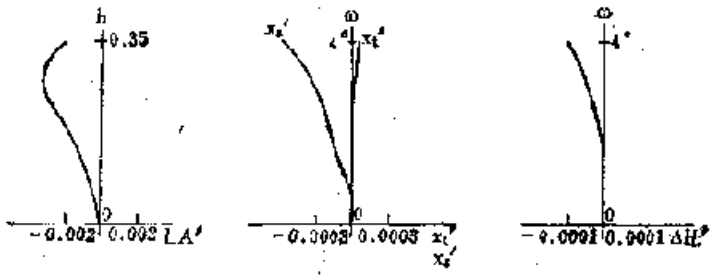
六 片 式 物 镜

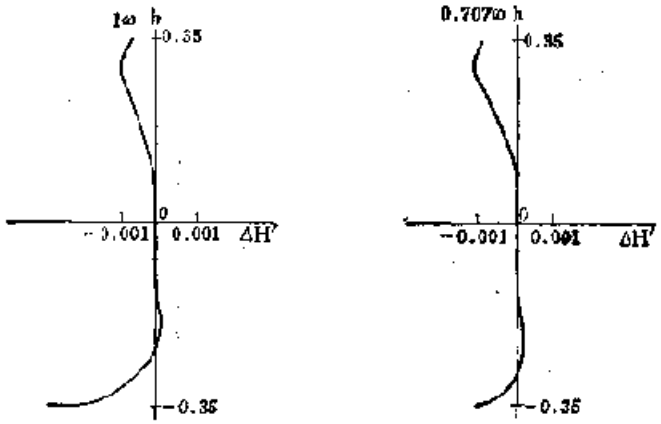
E. F. L＝1　　B. F. L＝0.46　　FNo. ＝1.4　　F. A. ＝8°



序号	r	d	n_D	ν_D	序号	r	d	n_D	ν_D
1	0.832	0.15	1.73	31.0	7	−0.396	0.055	1.59	31.0
2	4.92	0.02			8	0.736	0.002		
3	0.403	0.16	1.49	57.0	9	0.774	0.22	1.49	57.0
4	0.766	0.004			10	−0.476	0.009		
5	0.766	0.055	1.59	31.0	11	0.744	0.21	1.70	56.0
6	0.275	0.21			12	−2.01			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.0021	−0.000093	0.000085	−0.00023	−0.000075	0.07	−0.16%
入成ω%	LA′	ΔH′	x_t'	x_s'	$x_t - x_s'$	K_T	$K_{T0.7}$
100	−0.0019	−0.00011	0.000062	−0.00058	0.00065	−0.0017	−0.00040
70	−0.0031	−0.000039	0.000013	−0.00029	0.00033	−0.0012	−0.00030

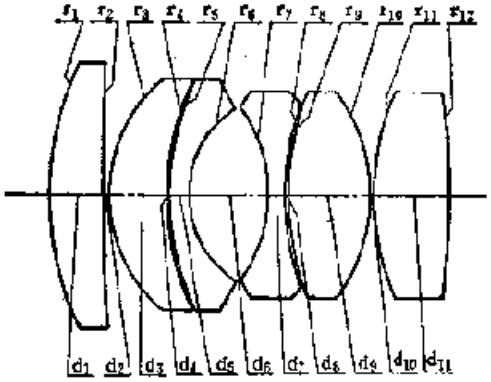




编号：01-00-026

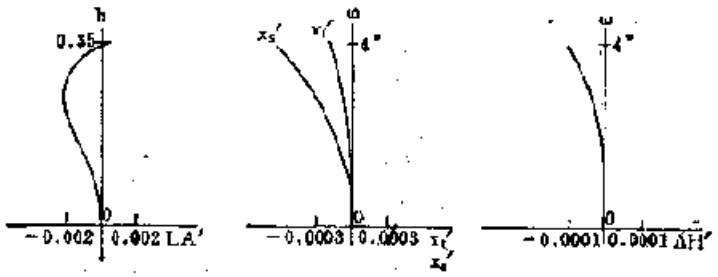
六 片 式 物 镜

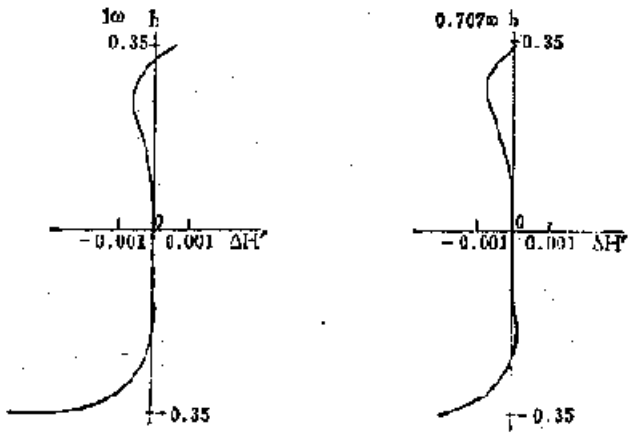
E. F. L＝1　　B. F. L＝0.49　　FNo. ＝1.4　　F. A. ＝8°



序号	r	d	n_D	ν_D	序号	r	d	n_D	ν_D
1	0.829	0.15	1.73	51.0	7	−0.373	0.055	1.57	33.0
2	4.35	0.015			8	0.799	0.004		
3	0.424	0.16	1.49	57.0	9	0.883	0.22	1.49	57.0
4	1.66	0.004			10	−0.452	0.01		
5	1.42	0.055	1.57	33.0	11	0.772	0.21	1.70	56.0
6	0.282	0.21			12	−1.96			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HT	QP(1ω)
	−0.0017	−0.00014	0.000062	−0.00022	−0.000073	0.069	−0.15%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	0.00045	−0.00010	−0.00019	−0.00069	0.00044	−0.0016	−0.00045
70	−0.0022	−0.000037	−0.000084	−0.00032	0.00023	−0.0011	−0.00033

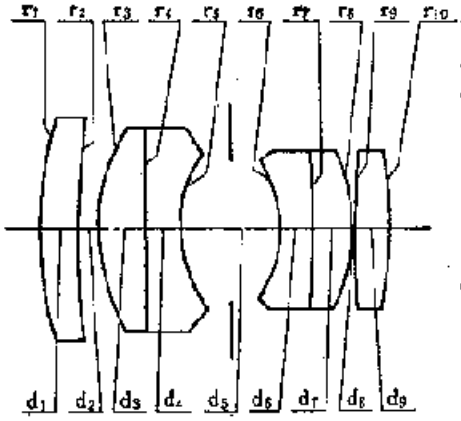




编号：01-00-027

高斯型摄影物镜

E. F. L＝100　　B. F. L＝61.56　　FNo. ＝1.8　　F. A. ＝45°

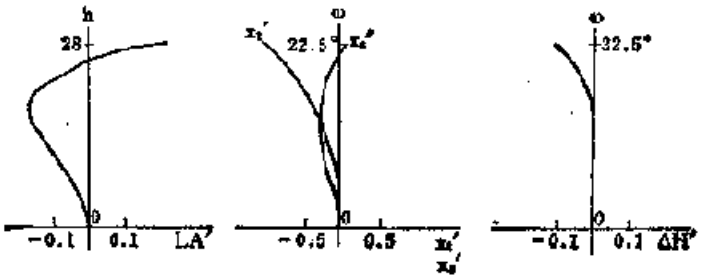


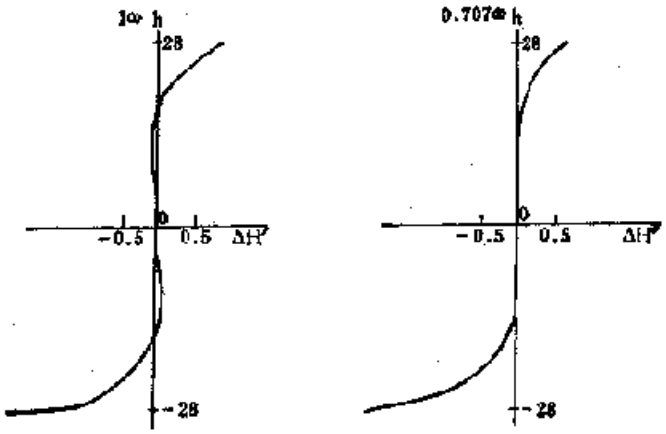
序号	r	d	n_D	ν_D	序号	r	d	n_D	ν_D
1	75.20	9.00	1.720	47.5	6	−28.72	7.0	1.605	38.0
2	271.66	4.03			7	−1023.62	8.97	1.657	57.2
3	42.71	10.59	1.720	42.0	8	−39.66	0.1		
4	∞	7.91	1.720	29.3	9	220.67	7.97	1.591	54.8
5	27.56	22.02*			10	−93.18			

22.02* = 11.01 + 11.01

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.11	−0.0045	0.035	−0.19	0.046	41.41	−0.25%

h或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.22	−0.10	−1.19	0.1	−1.30	−0.39	−0.028
70	−0.16	0.00082	−0.39	−0.28	0.11	−0.61	−0.082

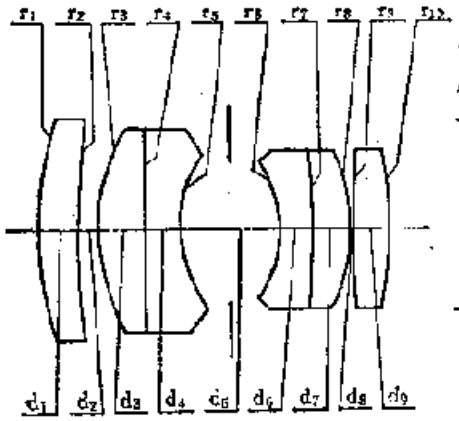




编号：01-00-028

高斯型摄影物镜

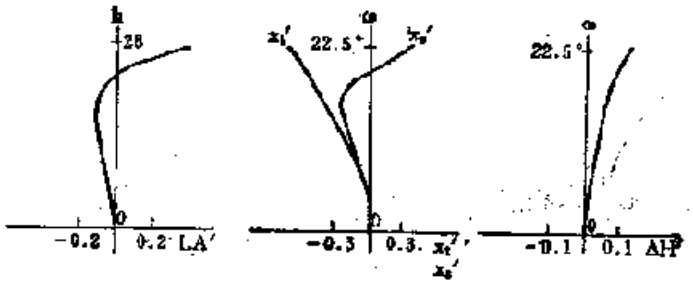
E. F. L＝100　　B. F. L＝63.38　　FNo. ＝1.8　　F. A. ＝45°

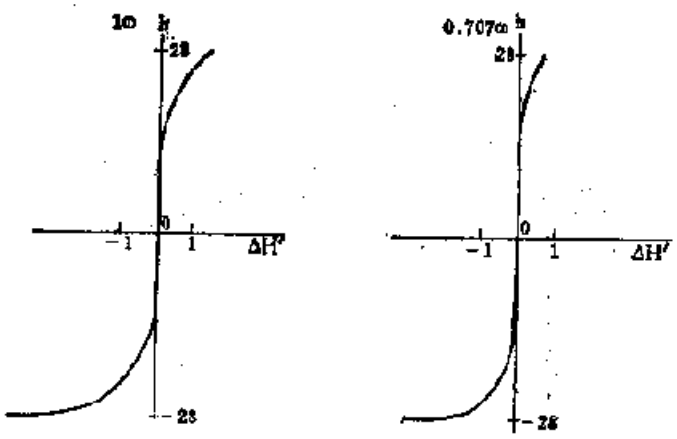


序号	r	d	n_D	ν_D	序号	r	d	n_D	ν_D
1	75.46	9.01	1.744	45.5	6	−32.90	7.01	1.689	30.9
2	273.87	0.10			7	∞	9.02	1.744	45.6
3	42.52	16.55	1.720	42.0	8	−45.22	0.10		
4	∞	2.0	1.720	29.3	9	250.96	8.02	1.720	47.5
5	28.19	18.01*			10	−109.45			

18.01* = 9.76 + 8.25

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.10	−0.0057	0.014	−0.18	0.12	41.41	0.29%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	0.39	0.12	−0.67	0.33	−1.01	−1.39	−0.15
70	−0.12	0.063	−0.38	−0.25	−0.13	−1.08	−0.14

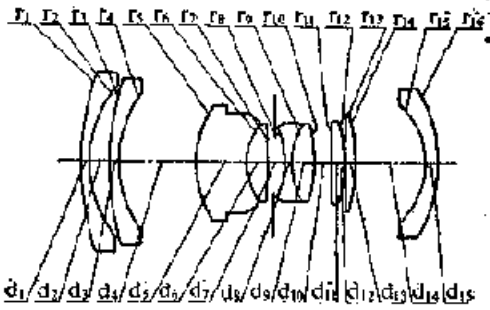




编号：01-00-029

广　角　镜　头

E. F. L＝1.0　　B. F. L＝0.47　　FNo. ＝2.8　　F. A. ＝75°

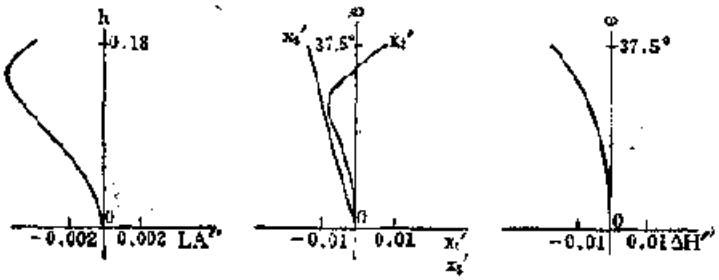


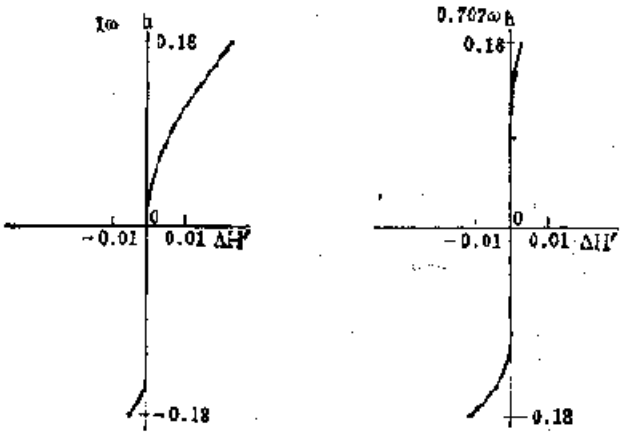
序号	r	d	n_e	ν_e	序号	r	d	n_e	ν_e
1	1.3412	0.0582	1.50559	66.7	9	0.4500	0.1455	1.74793	44.7
2	0.7192	0.1247			10	−0.9140	0.1071		
3	1.5744	0.0582	1.48915	69.9	11	8.5226	0.0728	1.69290	49.4
4	0.6888	0.4659			12	−1.4745	0.0014		
5	0.7057	0.2910	1.79128	47.4	13	−5.8307	0.0728	1.69290	49.4
6	0.4249	0.1455	1.56104	57.1	14	−1.4645	0.4365		
7	−1.7427	0.0972*			15	−0.4694	0.0780	1.69416	30.9
8	−0.5612	0.0488	1.75458	34.8	16	−0.8453			

0.0972* = 0.0486 + 0.0486

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00077	−0.00036	−0.00033	0.0013	0.0049	0.76	−2.11%

h或ω%	LA′	ΔH′	x_1'	x_3'	$x_1'-x_3'$	K_{T1}'	$K_{T0.7}'$
100	−0.0041	−0.016	0.0077	−0.013	0.020	0.0093	−0.0053
70	−0.0047	−0.0061	−0.0035	−0.011	0.0020	−0.0033	−0.000033

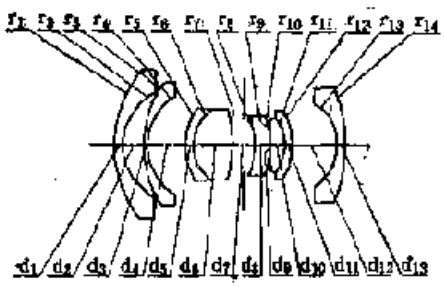




编号：01-00-030

广　角　镜　头

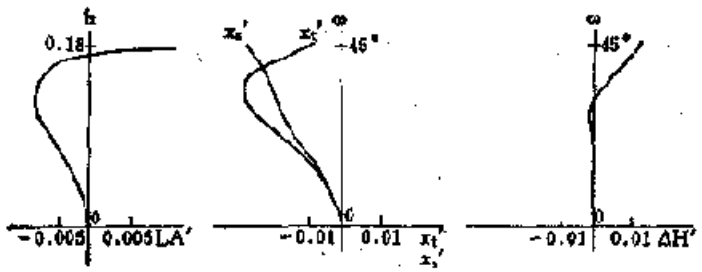
E.F.L＝1.0　　B.F.L＝0.50　　FNo.＝2.8　　F.A.＝90°

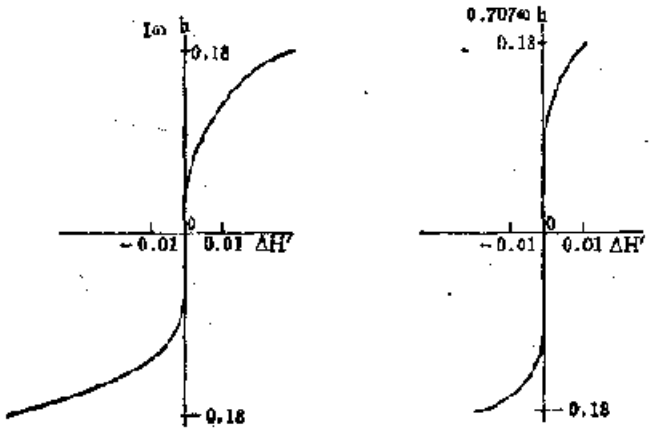


序号	r	d	n	v	序号	r	d	n	v
1	1.024083	0.056881	1.51871	64.0	8	−0.825459	0.152294	1.79128	47.2
2	0.513349	0.181193			9	−0.981422	0.001835		
3	0.374908	0.056422	1.51871	64.0	10	4.178945	0.139450	1.62541	56.6
4	0.523899	0.348165			11	−0.389908	0.049541	1.80156	28.2
5	0.738716	0.080734	1.79128	47.2	12	0.684312	0.417431		
6	0.413578	0.351835	1.62303	60.1	13	−0.460367	0.079358	1.62303	60.1
7	−1.312523	0.202752*			14	−1.740872			

0.202752* = 0.100000 + 0.102752

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.0015	0.00040	0.0011	0.00075	0.0019	1.00	1.35%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	0.012	0.013	−0.0085	−0.026	0.017	−0.014	−0.0042
70	−0.0085	−0.00091	−0.028	−0.017	−0.011	−0.0036	−0.00026

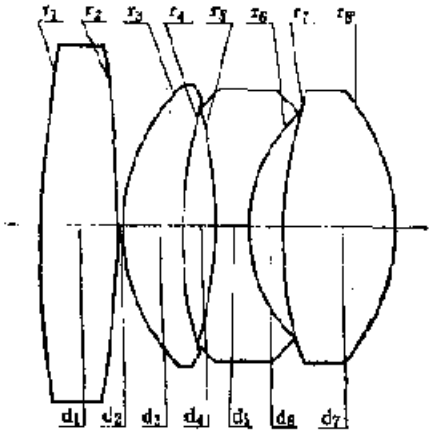




编号：01-00-031

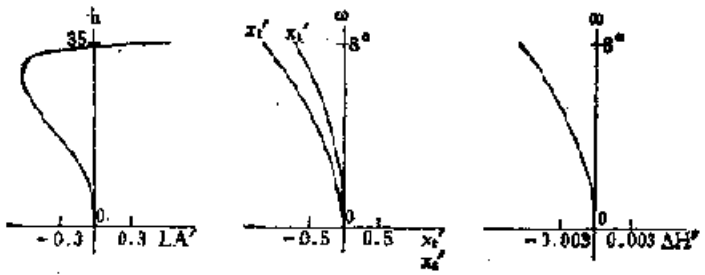
四 组 元 物 镜

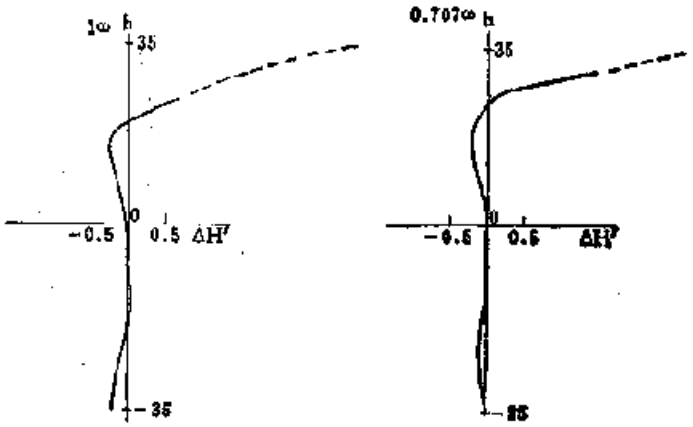
E. F. L＝100　　B. F. L＝59.39　　FNo.＝1.4　　F. A. ＝16°　　$Lp_1'=-5.0$



序号	r	d	n_D	ν_D	序号	r	d	n_D	ν_D
		5.0*							
1	288.7	20.0	1.697	56.0	5	−138.9	9.9	1.72	29.0
2	288.7	1.4			6	42.2	9.1		
3	54.3	17.0	1.697	56.0	7	115.4	31.6	1.697	56.0
4	132.8	8.4			8	−55.7			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.31	−0.27	−0.066	−0.12	−0.0086	14.05	−0.045%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}'$
100	0.62	−0.0063	−1.12	−0.72	−0.39	7.8	0.33
70	−0.59	−0.0033	−0.61	−0.38	−0.23	5.3	−0.033

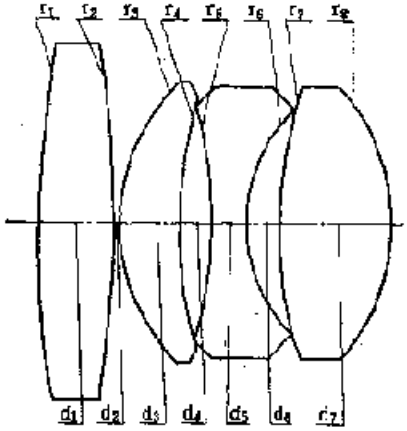




编号：01-00-032

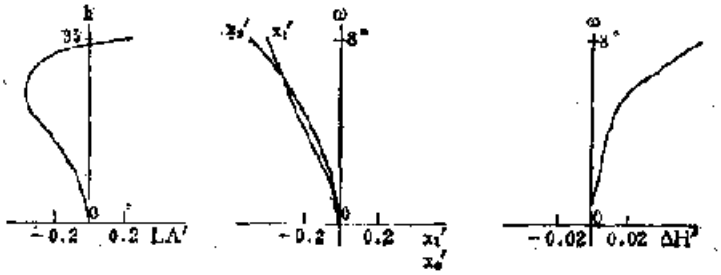
四 组 元 物 镜

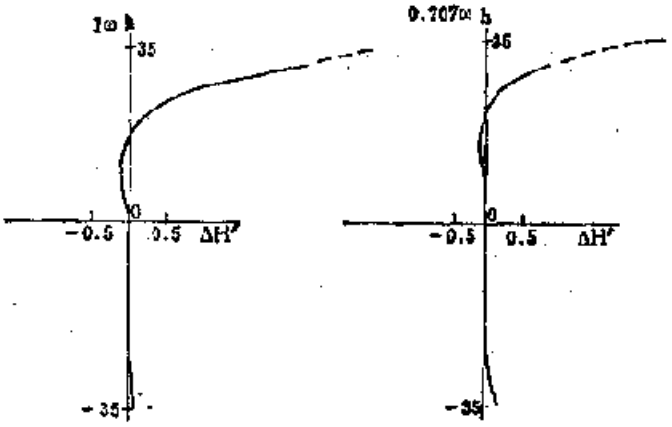
E. F. L＝100　　B. F. L＝48.09　　FNo: －1.4　　F. A. ＝16°　　Lp_1'＝－5.8



序号	r	d	n_D	ν_D	序号	r	d	n_D	ν_D
		5.0*							
1	258.4	20.1	1.697	56.0	5	－308.7	12.2	1.720	29.0
2	－258.4	1.5			6	37.3	8.64		
3	48.6	17.1	1.697	56.0	7	93.75	31.7	1.697	56.0
4	87.81	8.87			8	－52.7			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	－0.29	－0.15	－0.012	－0.12	0.034	14.06	0.43%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	0.24	0.060	－0.41	－0.49	0.079	5.28	0.33
70	－0.39	0.019	－0.27	－0.26	－0.0099	1.86	0.069

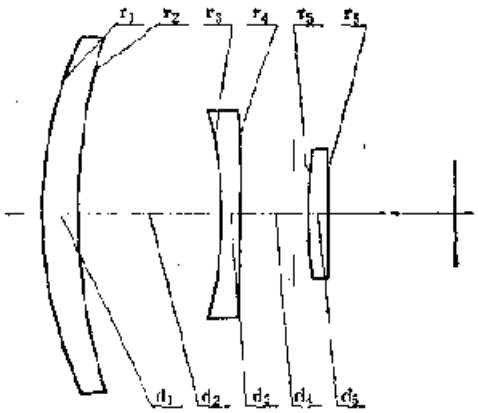




编号：01-00-033

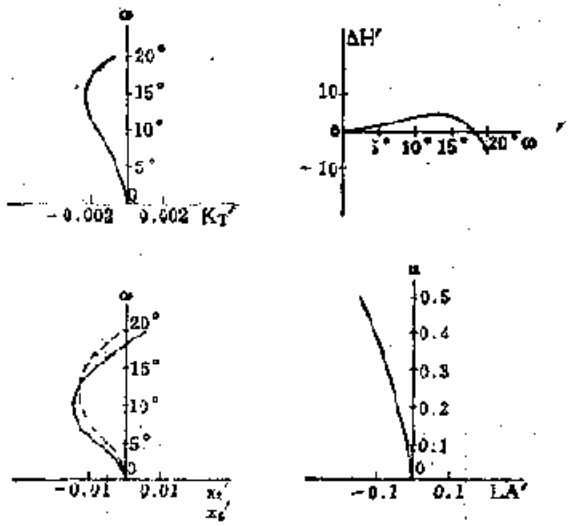
红外光学系统

E.F.L＝2.0英寸　　B.F.L＝　　FNo.＝2　　F.A.＝40°　　光栏直径＝0.618



序　号	t	d	N(8.50)	V(3.7~11.60)	φ
1	2.408	0.267	3.4195	132.94	2.550
2	3.653	0.820			
3	− 2.732	0.140	2.3964	29.09	1.220
4	−16.566	0.427*			
5	5.412	0.160	3.4195	132.94	0.900
6	− 0.518				

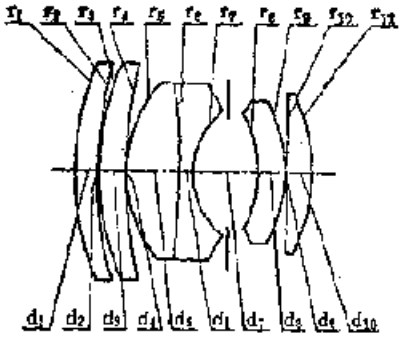
0.427* = 0.352 + 0.075



编号：01-00-034

摄　影　物　镜

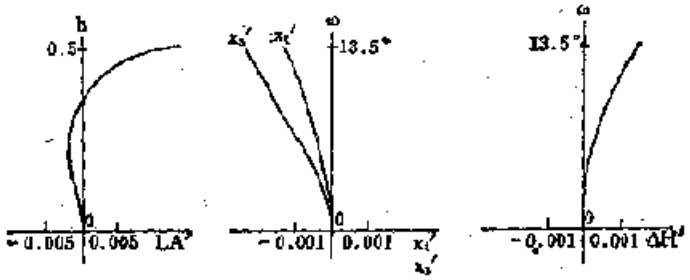
E. F. L＝1　　B. F. L＝0.52　　FNo. ＝1　　F. A. ＝27°

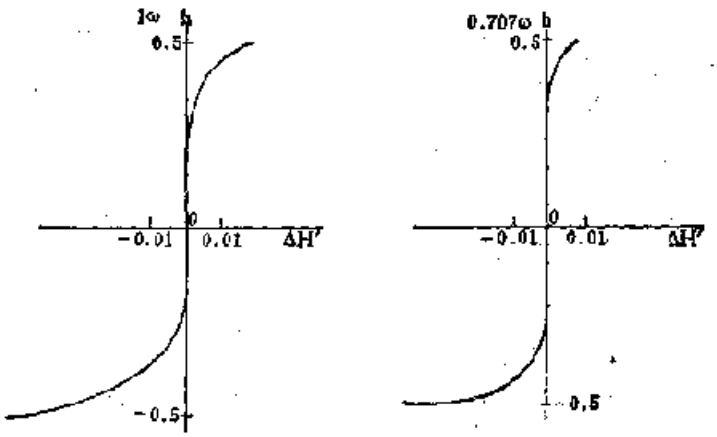


序号	r	d	n_e	ν_e	序号	r	d	n_e	ν_e
1	0.69162	0.07244	1.69290	49.4	7	0.22854	0.18944*		
2	1.12979	0.002			8	−0.30830	0.07589	1.73431	28.4
3	0.69162	0.07244	1.69290	49.4	9	−0.46674	0.00978		
4	1.12979	0.005			10	3.25487	0.07211	1.69290	49.4
5	0.30534	0.13689	1.69290	49.4	11	−0.55524			
6	−2.42522	0.03967	1.69416	30.9					

0.18944* = 0.10000 + 0.08944

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.0022	−0.00016	0.00014	−0.0010	0.0012	0.24	0.63%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{To.7}'$
100	0.011	−0.0015	−0.0013	−0.0024	0.0011	−0.036	−0.0026
70	−0.00049	0.00061	−0.0010	−0.0017	0.00063	−0.016	−0.0018

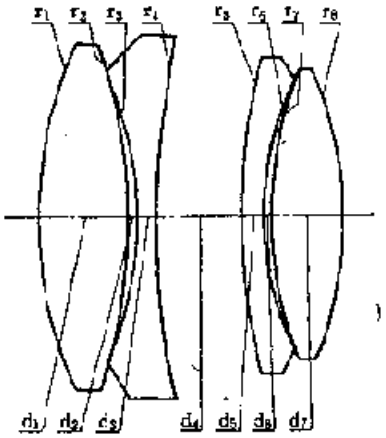




编号：01-00-035

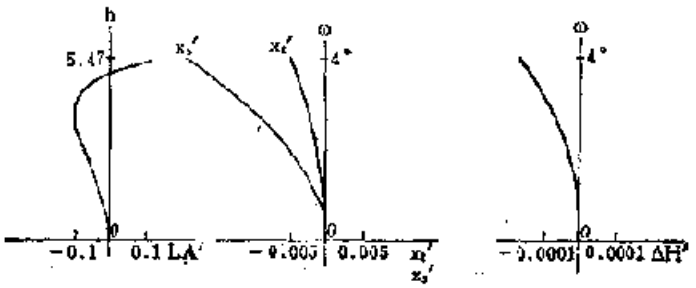
改型珀兹伐摄影物镜

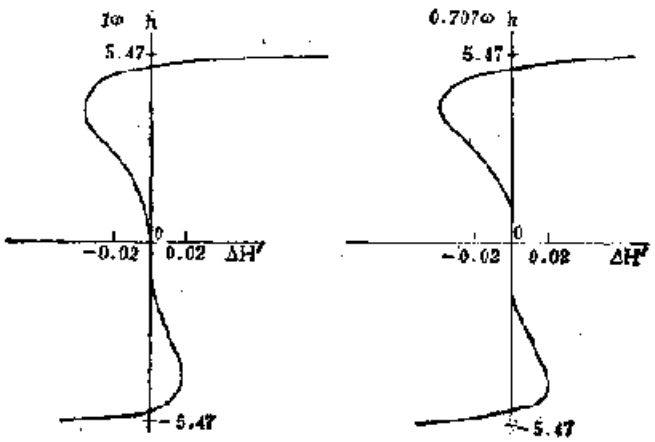
E. F. L＝13.17　　B. F. L＝5.20　　FNo. ＝1.2　　F. A. ＝8°　　$Lp_1'=-1.5$



序号	r	d	n_D	ν_D	序号	r	d	n_D	ν_D
		1.5*							
1	10.3753	3.68	1.691	54.8	5	10.1859	0.93	1.867	31.0
2	−26.0615	0.295			6	5.8613	1.00		
3	−17.7011	0.83	1.867	31.0	7	8.7902	4.61	1.691	54.8
4	∞	3.60			8	−18.3654			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.11	−0.0070	0.0023	−0.0093	−0.00016	0.92	−0.018%
h或ω%	LA′	ΔH′	x_t	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{TD.T}'$
100	0.10	−0.00016	−0.0053	−0.019	0.014	0.028	−0.0097
70	0.10	−0.000065	−0.0030	−0.010	0.0070	0.016	−0.0077

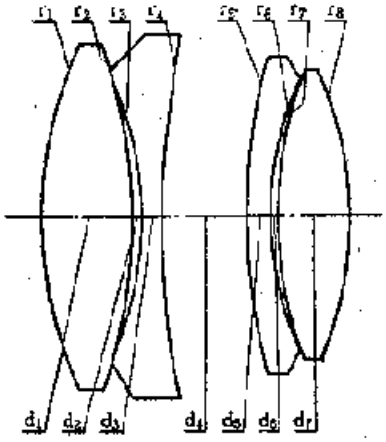




编号：01-00-036

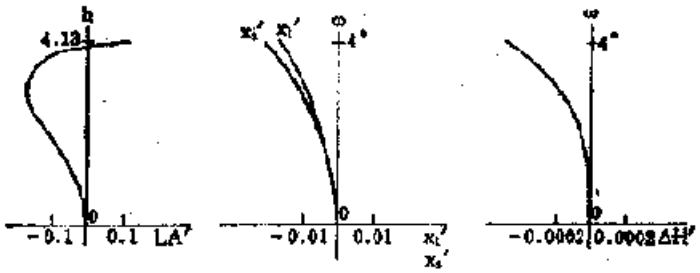
改型珀兹伐摄影物镜

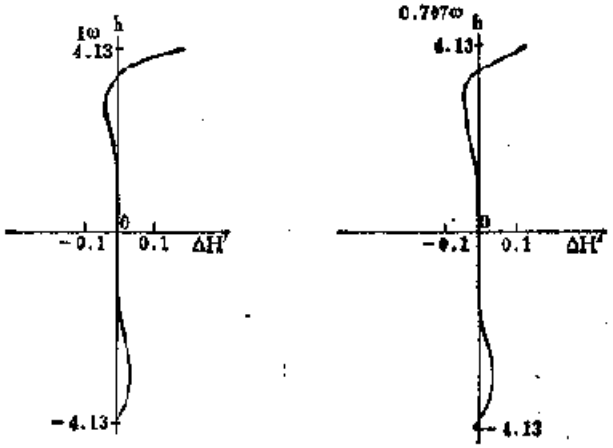
E. F. L＝13.205　　B. F. L＝9.82　　FNo.＝1.6　　F. A. ＝8°　　L_{p1}'＝－1.5



序号	r	d	n_D	ν_D	序号	r	d	n_D	ν_D
		1.5*							
1	11.1686	2.5	1.657	50.9	5	44.4831	0.68	1.649	33.8
2	－14.9968	0.291			6	8.1858	0.257		
3	－10.000	0.62	1.649	33.8	7	11.8032	2.0	1.657	50.9
4	63.0952	2.4			8	－9.8174			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	－0.099	－0.0055	0.00025	－0.0042	－0.00030	0.92	－0.050%
h 或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.11	－0.00046	－0.016	－0.020	0.0033	0.092	－0.0018
70	－0.17	－0.00016	－0.0086	－0.010	0.0014	0.059	－0.0022

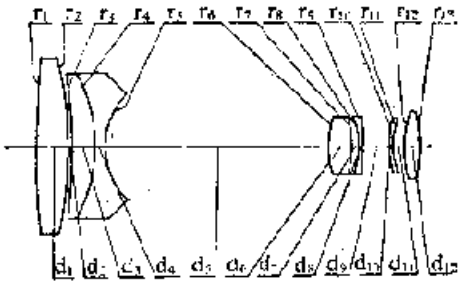




编号：01-00-037

广角摄影物镜

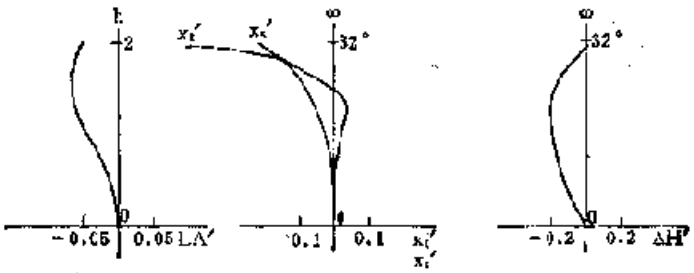
E.F.L=11.0　　B.F.L=22.2　　FNo.=2.8　　F.A.=64°

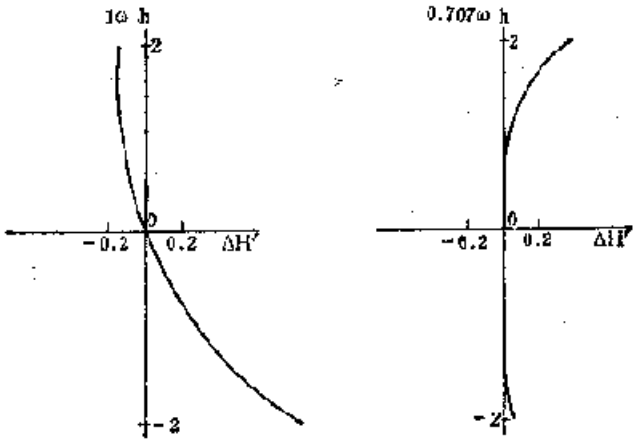


序号	r	d	n_D	ν_D	序号	r	d	n_D	ν_D
1	166.789	5.0	1.541	47.3	8	-11.32	0.76	1.621	36.2
2	- 60.881	0.5			9	-46.23	4.25		
3	-100.016	3.5	1.617	36.6	10	17.25	0.76	1.649	33.8
4	- 22.711	1.5	1.5582	67.8	11	10.83	1.32		
5	10.79	34.5*			12	15.399	2.10	1.511	63.6
6	17.99	3.64	1.511	63.5	13	-29.46			
7	- 12.139	0.52							

$34.5^{*}=28.5+6.0$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1○)
	-0.013	0.0057	0.0053	-0.014	-0.19	6.87	0.34%
h或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	-0.052	0.023	-12.07	-0.20	-11.86	0.32	0.15
70	-0.065	-0.19	0.040	-0.054	0.10	0.18	0.051

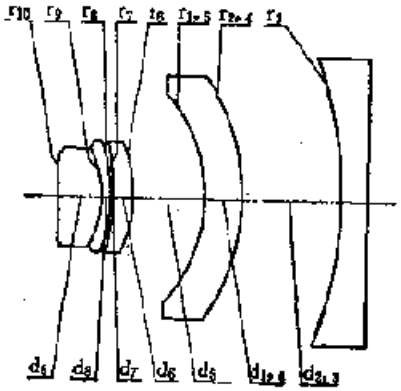




编号：01-00-038

大相对孔径的折反射光学系统

E. F. L＝1　　B. F. L＝　　FNo. ＝0.63　　F. A. ＝　　$\beta=\left(\frac{1}{6.4}\right)^{*}$

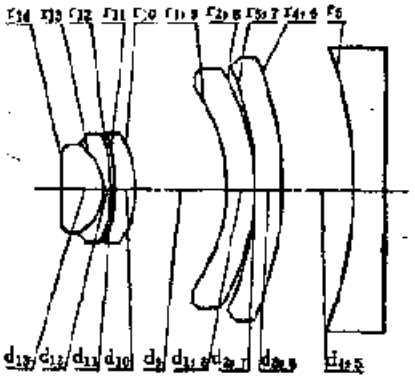


序号	r	d	n	ν	序号	r	d	n	ν
1	－0.89025	0.2	1.51633	64.1	6	－0.60387	0.12	1.51633	64.1
2	－1.12294	0.55879			7	－1.82836	－0.004		
3	－2.36770	0.55879	－1		8	－1.65009	－0.04	－1.71736	29.5
4	－1.12294	－0.2	－1.51633	64.1	9	－0.51633	－0.25035	－1.51633	64.1
5	－0.89025	－0.40326			10	∞			

编号：01-00-039

大相对孔径的折反射光学系统

E. F. L＝1　　B. F. L＝　　FNo. ＝0.63　　F. A. ＝　　$\beta=\left(\frac{1}{6.4}\right)^{*}$

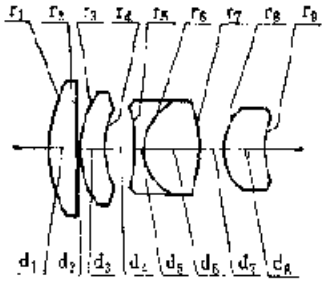


序号	r	d	n	ν	序号	r	d	n	ν
1	－0.95546	0.13011	1.51633	64.1	8	－1.37887	－0.13011	－1.51633	64.1
2	－1.57887	0.0043			9	－0.95545	－0.51095		
3	－1.91034	0.16129	1.62004	36.3	10	－0.50339	－0.12043	－1.51633	64.1
4	－1.68398	0.3823			11	－1.33064	－0.0043		
5	－2.38359	－0.3823	－1		12	－0.94432	－0.03978	－1.71736	29.5
6	－1.68398	－0.16129	－1.62004	36.3	13	－0.32242	－0.23726	－1.51633	64.1
7	－1.91034	－0.0043			14	－6.25930			

编号：01-00-040

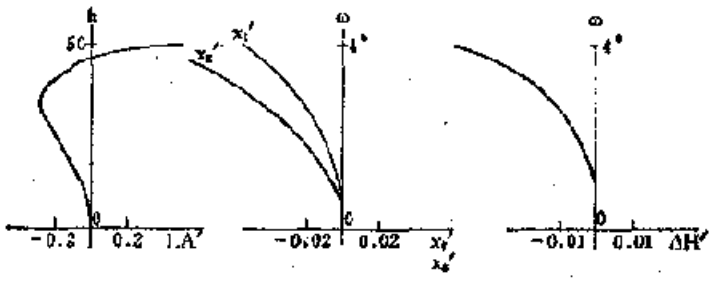
大孔径放映镜头

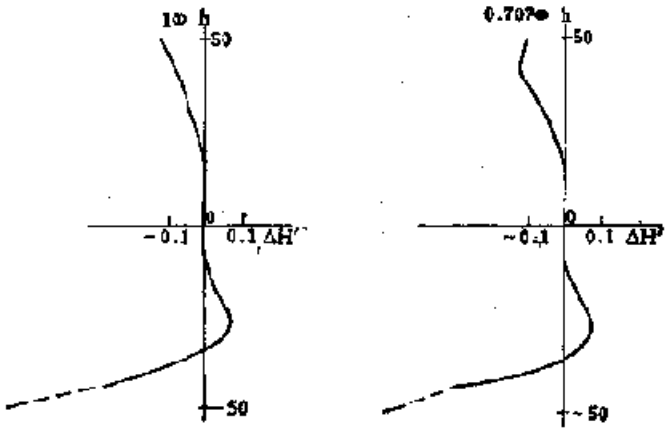
E. F. L＝100　　B. F. L＝15.8　　FNo. ＝1.0　　F. A. ＝8°



序号	r	d	n_D	ν_D	序号	r	d	n_D	ν_D
1	109.2	23.4	1.617	54.9	6	40.1	45.8	1.670	47.2
2	3200.7	2.5			7	−88.3	18.8		
3	67.3	21.1	1.603	43.6	8	44.6	31.8	1.734	51.0
4	65.5	24.6			9	59.0			
5	−107.9	6.6	1.751	27.8					

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.49	0.082	0.015	0.066	−0.038	7	−0.55%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	0.50	−0.038	−0.055	−0.097	0.042	−4.15	−0.046
70	−0.27	−0.013	−0.023	−0.050	0.028	−1.46	−0.017

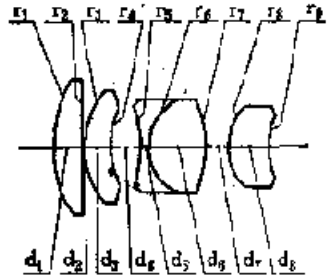




编号：01-00-041

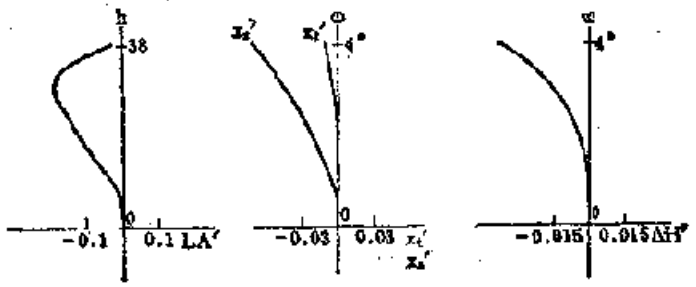
大孔径放映镜头

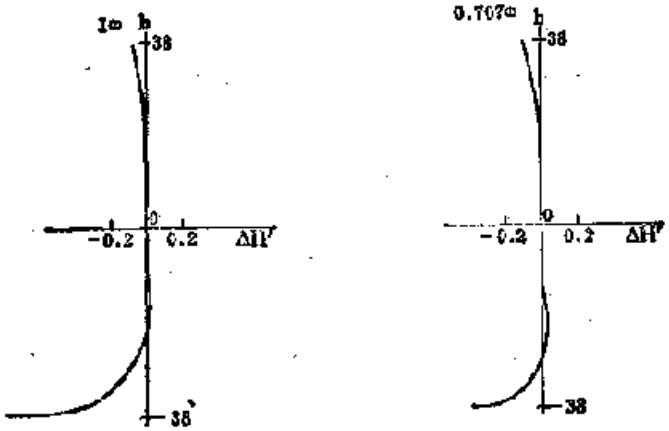
E. F. L＝100　　B. F. L＝17.9　　FNo. ＝1.3　　F. A. ＝8°



序号	r	d	nD	νD	序号	r	d	nD	νD
1	98.3	21.4	1.611	58.8	6	32.6	35.2	1.611	58.8
2	1006.0	9.3			7	−86.1	5.2		
3	61.0	26.3	1.611	58.8	8	40.0	28.5	1.649	33.8
4	56.2	9.0			9	49.5			
5	−143.2	28.0	1.720	29.3					

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.18	0.026	0.0138	−0.035	0.030	7	−0.55%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	−0.042	−0.038	−0.0098	−0.073	0.063	−0.46	−0.025
70	−0.17	−0.013	0.0015	−0.037	0.039	−0.24	−0.0093



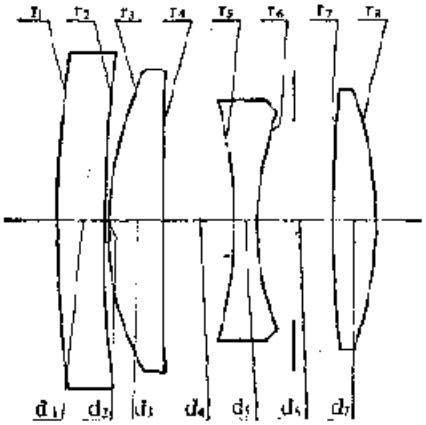


1108399

编号：01-00-042

消象散的四镜片物镜

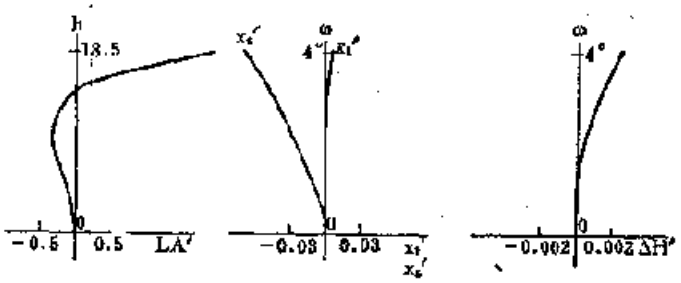
E. F. L＝100　　B. F. L＝81　　FNo. ＝2.7　　F. A. ＝8°

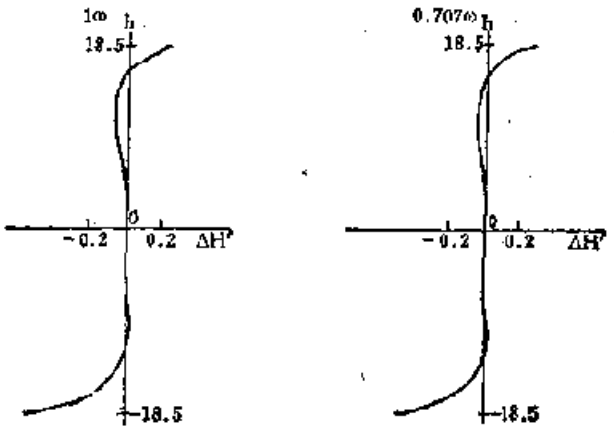


序号	r	d	n	ν	序号	r	d	n	ν
1	116.31	5.59	1.610	56.9	5	−54.00	1.28	1.649	33.8
2	144.26	0.23			6	42.08	11.02*		
3	41.58	6.10	1.658	50.8	7	713.41	6.47	1.620	60.3
4	−563.55	8.27			8	−39.92			

11.02* = 5.00 + 6.02

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.11	−0.0058	0.0026	−0.0073	0.00094	7	0.037%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	1.96	0.0025	0.0095	0.067	0.077	0.17	−3.040
70	−0.25	0.00091	0.0043	−0.034	0.038	−0.12	−3.027

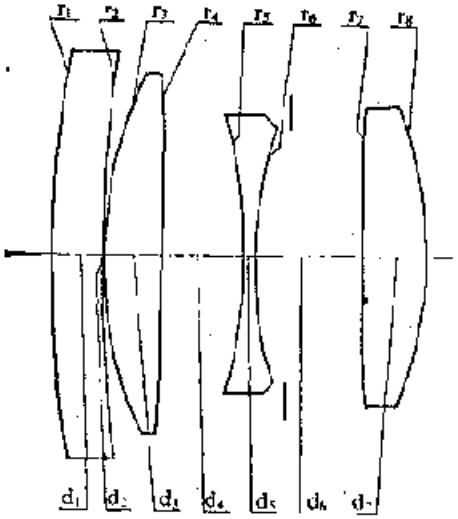




编号：01-00-043

消象散的四镜片物镜

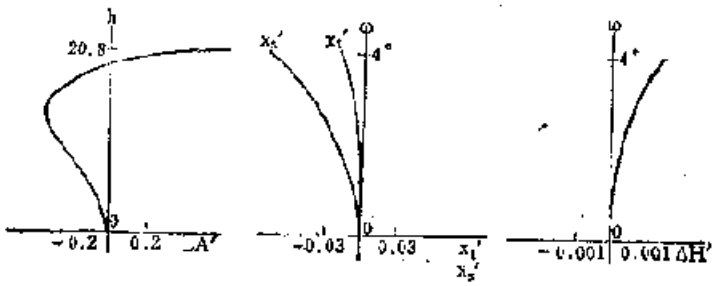
E. F. L＝100　　B. F. L＝76　　FNo. ＝2.4　　F. A. ＝8°

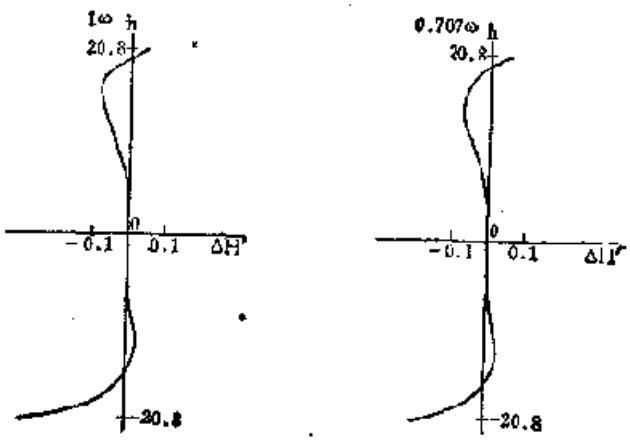


序号	r	d	n	v	序号	r	d	n	v
1	146.94	7.4535	1.5890	61.0	5	-67.082	3.7268	1.7050	30.1
2	198.05	0.5324			6	47.916	11.180*		
3	47.916	8.5188	1.6930	53.3	7	198.05	6.9211	1.7500	44.5
4	1064.8	10.648			8	-51.429			

11.180* = 5.000 + 6.180

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	III	$Q_{T'(1\omega)}$
	-0.13	-0.0055	0.0025	-0.0091	0.00058	7	0.020%
h或ω%	LA'	$\Delta H'$	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{70.7}'$
100	0.66	0.0014	-0.014	-0.074	0.060	-0.13	-0.031
70	-0.37	0.00149	0.0075	-0.037	0.030	-0.090	-0.021

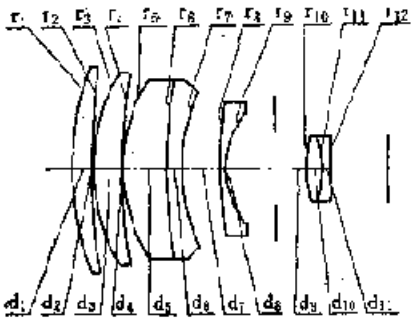




编号: 01-00-044

摄影或电影摄影用的大孔径望远物镜

E. F. L＝100　　B. F. L＝29.1　　FNo. ＝ 2　　F. A. ＝20°

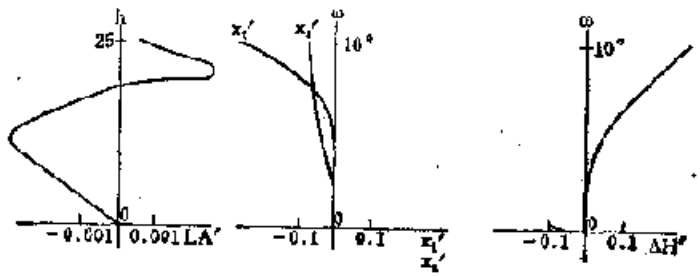


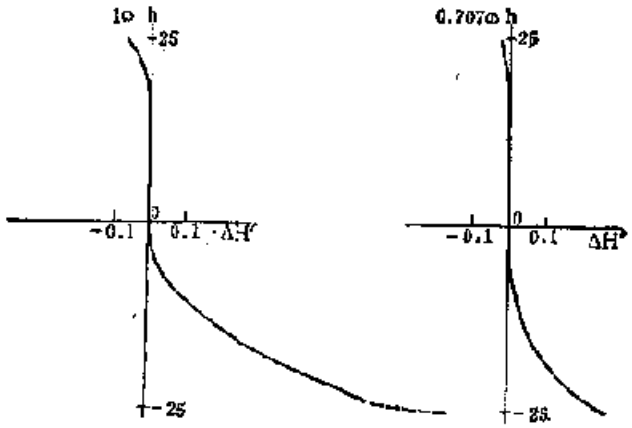
序号	r	d	n_e	ν_e	序号	r	d	n_e	ν_e
1	80.59	6.08	1.51871	63.96	7	50.75	10.40		
2	581.56	0.06			8	99.39	1.55	1.70444	29.84
3	52.28	8.11	1.51871	63.96	9	20.06	22.22*		
4	174.19	0.11			10	62.49	4.55	1.67245	44.71
5	43.11	12.28	1.62287	60.06	11	−17.55	2.07	1.62554	57.87
6	441.68	4.15	1.70444	29.84	12	−259.70			

$\Sigma d = 71.59$

$22.22^* = 14.00 + 8.22$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.0035	0.00044	0.010	−0.032	0.19	17.83	1.57%
h或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.00052	0.29	−0.26	−0.077	−0.18	0.43	0.15
70	−0.00091	0.12	−0.040	−0.064	0.024	0.12	0.046

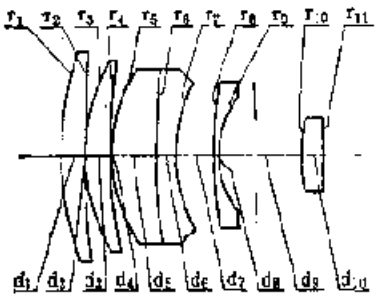




编号：01-00-045

摄影或电影摄影用的大孔径望远物镜

E. F. L＝100　　**B. F. L＝29.6**　　**FNo. ＝ 2**　　**F. A. ＝20°**

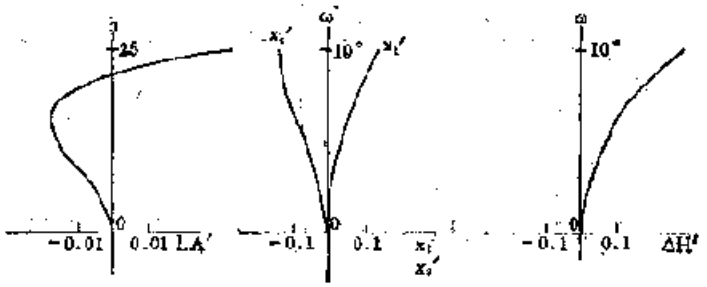


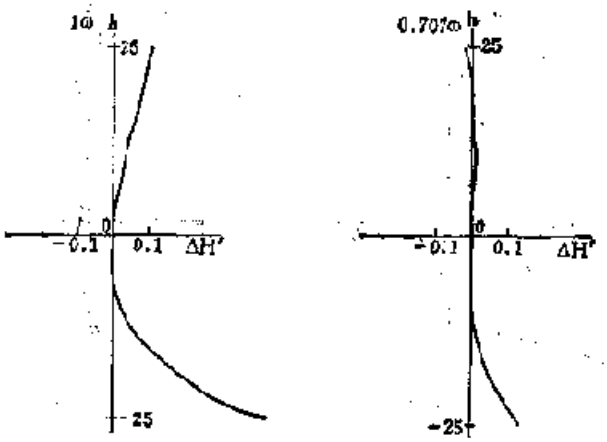
序号	r	d	n_e	ν_e	序号	r	d	n_e	ν_e
1	84.32	6.34	1.51871	63.96	7	49.03	10.48		
2	535.46	0.06			8	104.87	1.56	1.70444	29.84
3	52.64	7.94	1.51871	63.96	9	24.47	22.37*		
4	175.38	0.11			10	55.47	6.69	1.7044	29.84
5	43.36	12.36	1.62287	60.06	11	-3130.83			
6	877.84	4.18	1.70444	29.84					

$\Sigma d = 72.09$

$22.37^* = 10.00 + 12.37$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(ω)
	-0.011	-0.011	0.022	-0.056	0.19	17.63	1.65%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K'_{T1}	$K'_{T0.7}$
100	0.033	0.20	0.135	-0.135	0.27	0.26	0.11
70	-0.017	0.12	0.062	-0.10	0.17	0.056	0.023

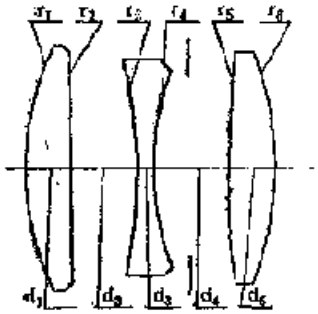




编号：01-00-046

三 片 式 物 镜

E. F. L＝100　　B. F. L＝82.79　　FNo. ＝2.8　　F. A. ＝47°

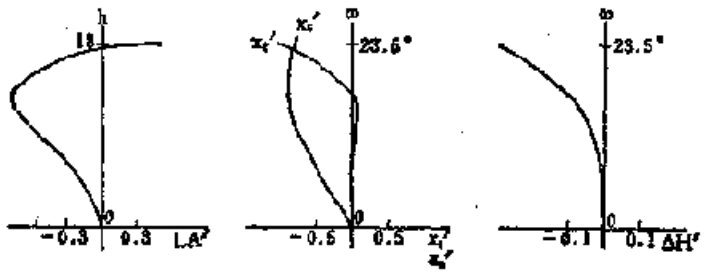


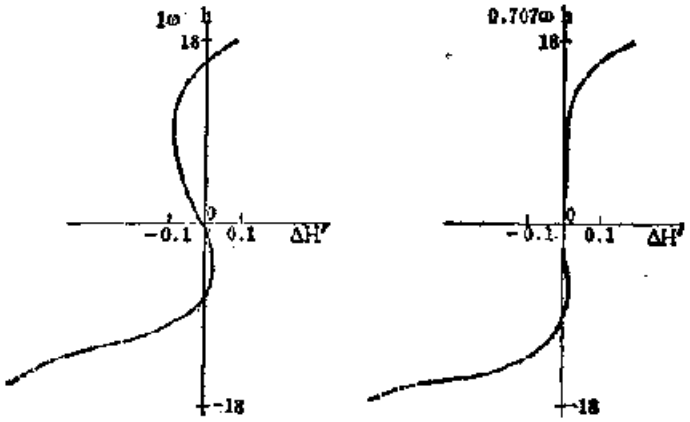
序号	r	d	n_e	v_e	序号	r	d	n_e	v_e
1	38.4537	6.47945	1.67000	48.13	4	38.9151	10.43249*		
2	942.116	9.15967			5	149.969	6.40254	1.64650	47.50
3	−67.6785	2.37644	1.70445	29.84	6	−45.7984			

$\Sigma d = 34.85059$

$10.43249^* = 5.00000 + 5.43249$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.16	0.047	0.066	−0.23	−0.052	43.48	−0.66%
h或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.47	−0.29	−1.04	−0.84	−0.20	−1.38	−0.21
70	−0.75	−0.084	0.011	−0.90	0.91	−0.58	−0.034

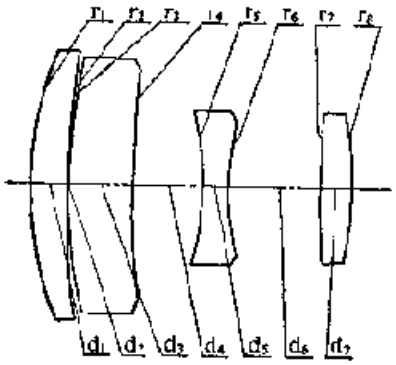




编号：01-00-047

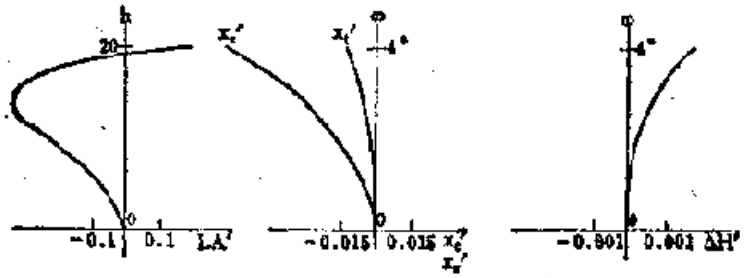
四 片 式 物 镜

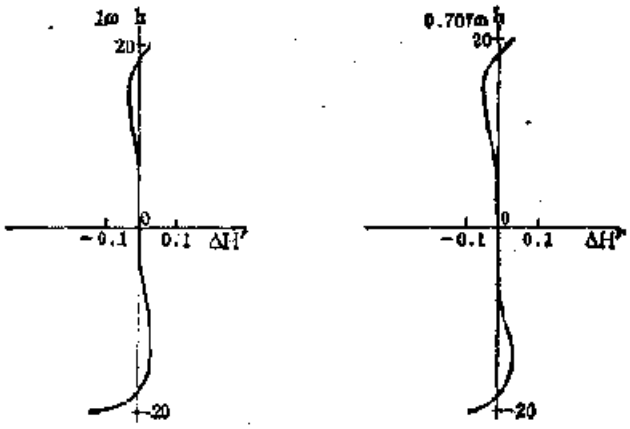
E. F. L＝100　　B. F. L＝72.53　　FNo.＝2.5　　F. A.＝8°



序号	r	d	n_d	ν_d	序号	r	d	n_d	ν_d
1	53.10	5.94	1.71300	53.89	5	−57.78	4.24	1.69895	30.05
2	308.51	0.11			6	41.09	14.24		
3	98.74	9.79	1.56873	63.12	7	159.17	5.03	1.71300	53.89
4	208.73	10.48			8	−49.09			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.090	0.0046	0.0020	−0.0072	0.00073	7	0.035%
h 或 ω%	LA′	ΔH′	x'_t	x'_s	$x'_t-x'_s$	K'_{T1}	$K'_{T0.7}$
100	0.18	0.0018	−0.012	−0.063	0.050	−0.047	0.0029
70	−0.31	0.00063	−0.0069	−0.032	0.025	−0.029	0.0035

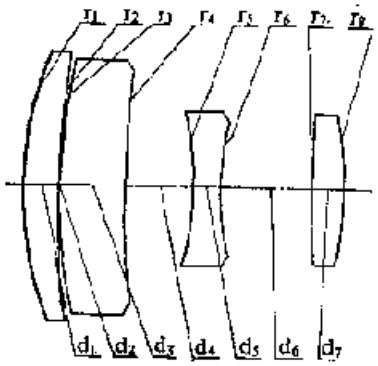




编号：01-00-048

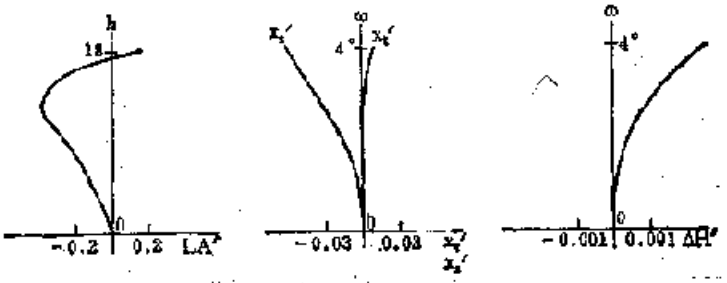
四 片 式 物 镜

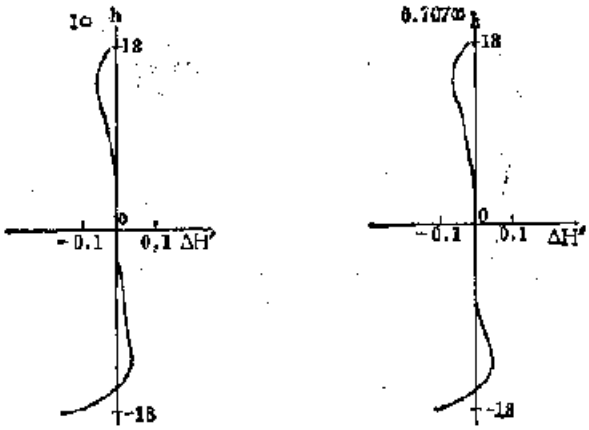
E. F. L＝100　　B. F. L＝72.70　　FNo. ＝2.8　　F. A. ＝8°



序号	r	d	n_d	ν_d	序号	r	d	n_d	ν_d
1	42.03	4.40	1.62299	60.29	5	−59.68	2.61	1.72151	29.23
2	199.95	0.11			6	38.08	10.55		
3	88.27	9.81	1.52300	59.6	7	118.60	5.54	1.66892	44.98
4	273.54	10.25			8	−44.41			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HT	QP(1ω)
	−0.091	0.0030	0.0024	−0.0066	0.00095	7	0.037%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	0.15	0.0026	0.0095	0.064	0.074	−0.083	0.0055
70	−0.41	0.00093	0.0045	−0.032	0.037	−0.055	−0.0028

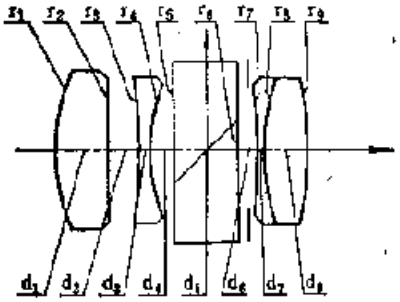




编号：01-00-049

单镜头反射式照相机镜头

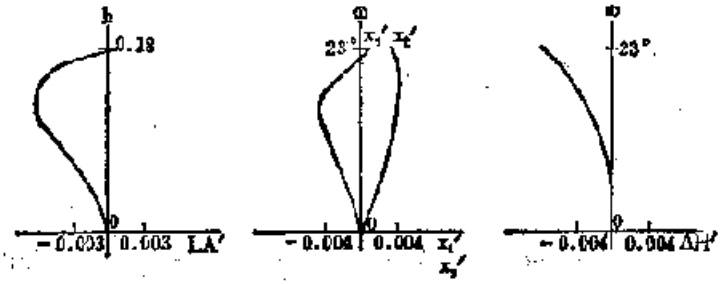
E. F. L＝1.0　　B. F. L＝0.78　　FNo. ＝2.8　　F. A. ＝±23°

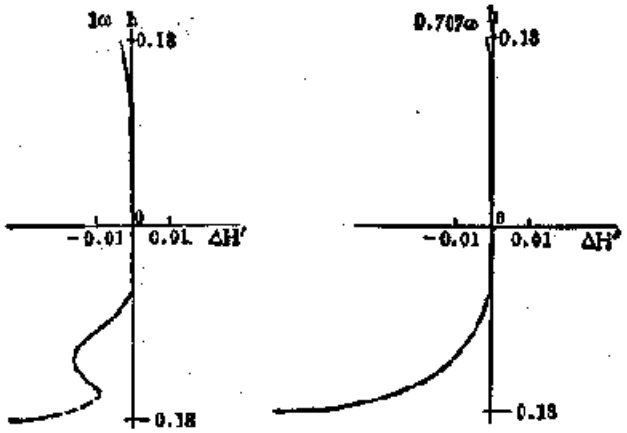


序号	r	d	n_d	ν_d	序号	r	d	n_d	ν_d
1	0.376	0.1	1.717	47.9	6	∞	0.030*		
2	29.5	0.58			7	−4.0	0.016	1.603	38.0
3	−0.91	0.02	1.573	32.2	8	0.486	0.08	1.717	47.9
4	0.333	0.045			9	−0.610			
5	∞	0.12	1.515	64.0					

0.030* = 0.015 + 0.015

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QΓ(1ω)
	−0.0013	0.00053	0.00045	−0.0015	−0.0023	0.41	−1.88%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.0013	−0.0079	0.0037	0.00077	0.0029	−0.20	−0.0094
70	−0.0062	−0.0028	0.0039	−0.0043	0.0082	−0.030	−0.0049



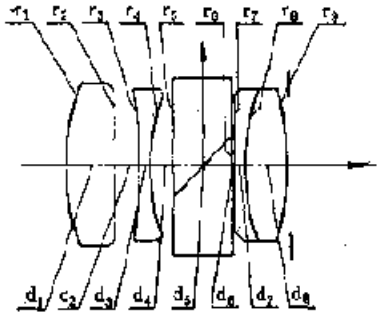


编号：01-00-050

单镜头反射式照相机镜头

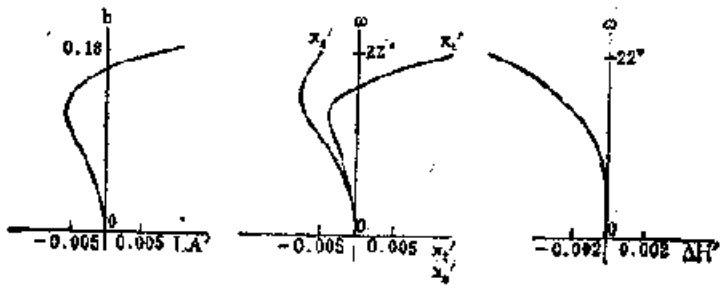
E.F.L=1.0　　B.F.L=0.84　　FNo.=2.8　　F.A.=±22°

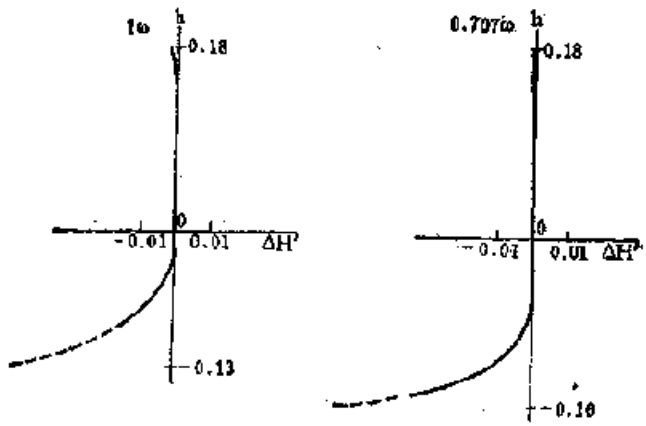
光栏位于最后表面的顶点处。



序号	r	d	n	ν	序号	r	d	n	ν
1	0.365	0.09	1.713	43.2	6	∞	0.004		
2	12.2	0.046			7	∞	0.018	1.503	38.0
3	-0.92	0.02	1.673	32.2	8	0.40	0.75	1.717	47.9
4	0.323	0.045			9	-0.546			
5	∞	0.11	1.516	64.0					

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	-0.0015	0.00097	-0.00010	-0.0013	-0.0014	0.40	1.62%
入成ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.011	-0.0085	0.013	-0.0056	0.019	-0.35	-0.028
70	-0.0058	-0.0019	-0.0042	-0.0076	0.0034	-0.081	-0.0056

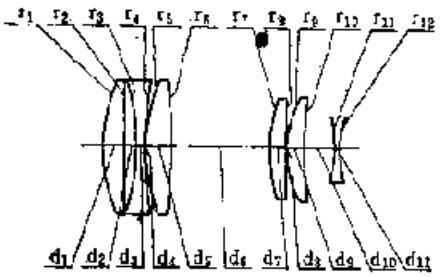




编号：01-00-051

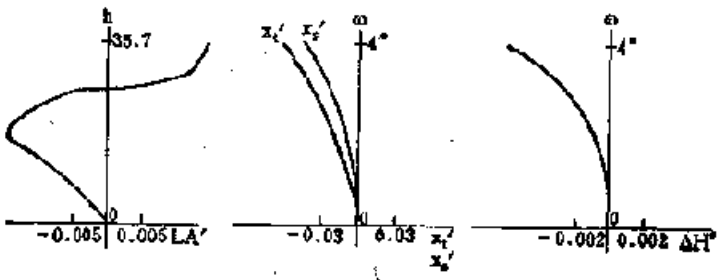
带有平象场镜及至少三个正透镜的珀兹伐物镜

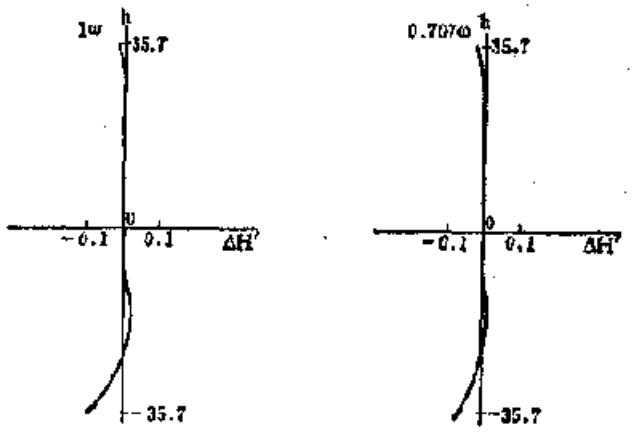
E. F. L＝100　　B. F. L＝17.04　　FNo.＝1.4　　F. A＝8°



序号	r	d	n_D	ν_D	序号	r	d	n_D	ν_D
1	89.6	12.7	1.611	58.8	7	88.3	9.0	1.611	58.8
2	∞	5.43			8	∞	0.587		
3	−120.2	4.89	1.720	29.3	9	66.8	9.4	1.611	58.8
4	257.3	0.587			10	170.2	16.9		
5	106.3	12.9	1.611	58.8	11	−71.8	2.54	1.720	29.3
6	−333	55.4			12	79.7			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.028	0.016	−0.0033	−0.0091	−0.0041	7	0.084%
h 或 ω%	LA′	Δl′	x_1'	x_2'	$x_1'-x_1'$	K_{T1}'	$K_{T0.7}'$
100	0.014	−0.0058	−0.071	−0.046	−0.025	−0.059	−0.0013
70	−0.0054	−0.0020	−0.036	−0.023	−0.012	−0.043	−0.0012

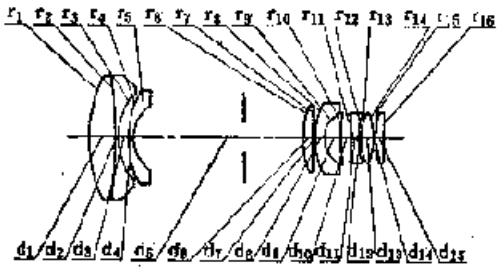




编号：01-00-052

广角长工作截距摄影物镜

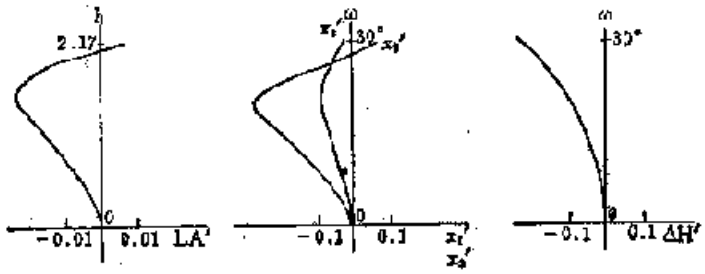
E. F. L＝10.0　　B. F. L＝18.59　　FNo. ＝2.3　　F. A. ＝60°

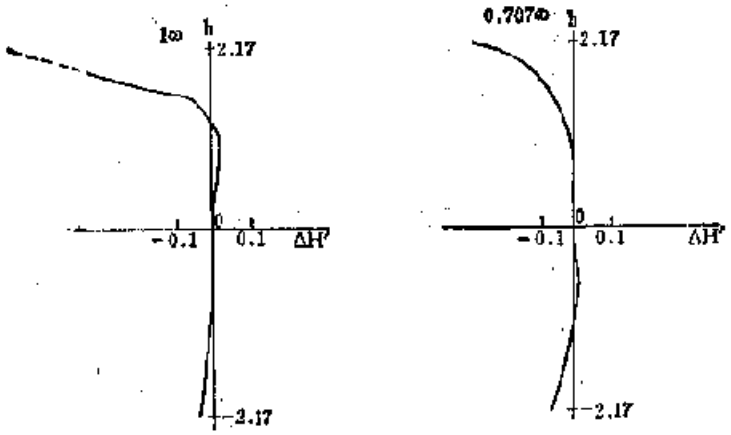


序号	r	d	n_D	ν_D	序号	r	d	n_D	ν_D
1	39.42	7.06	1.8037	41.8	9	7.91	4.28	1.698	54.8
2	−158.91	1.56	1.498	67.0	10	31.79	3.30		
3	14.52	3.21			11	−30.11	1.90	1.7506	27.8
4	29.40	1.36	1.720	29.3	12	16.48	0.65		
5	12.14	16.06*			13	26.58	2.77	1.657	57.2
6	34.24	2.97	1.729	50.0	14	−28.28	0.07		
7	325.04	0.07			15	31.02	3.22	1.657	57.2
8	19.23	2.30	1.651	55.8	16	−532.76			

46.06° = 31.09 + 14.97

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	0.0072	−0.033	0.025	0.0035	−0.13	6.24	−3.96%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T_1}	$K_{T_{0.7}}$
100	0.0069	−0.24	0.068	−0.011	0.079	−1.73	−0.017
70	−0.022	−0.12	−0.28	−0.089	−0.19	−0.18	−0.039

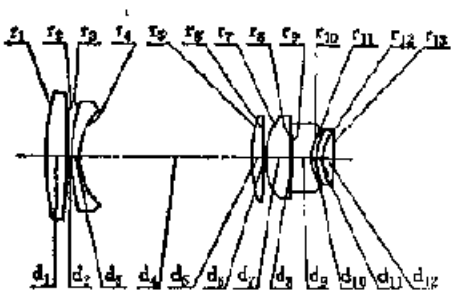




编号：01-00-053

具有负前组与多镜片正后组的放映物镜

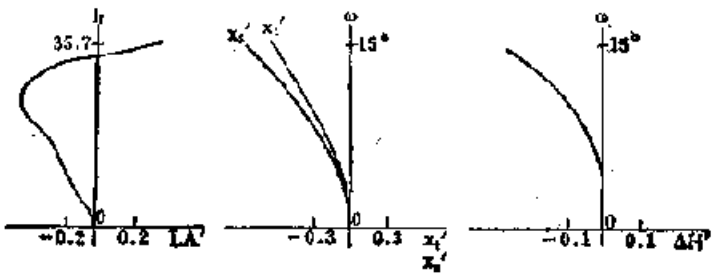
E. F. L＝100　　B. F. L＝87.22　　FNo. ＝1.4　　F. A. ＝30°　　Lp'_4＝290

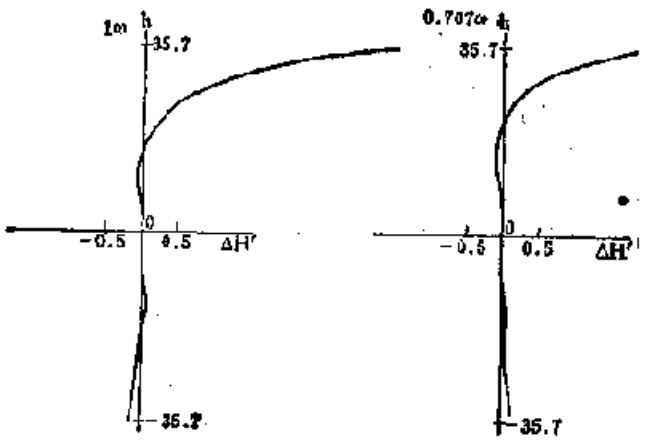


序号	r	d	n_e	ν_e	序号	r	d	n_e	ν_e
1	555.40	30.0	1.65285	33.5	8	980.20	5.0		
2	∞	10.0			9	−1697.50	35.0	1.76846	26.8
3	281.00	15.0	1.61521	58.4	10	64.50	7.0		
4	103.10	290.0			11	88.15	10.0	1.52031	58.8
5	242.00	20.0	1.62287	60.1	12	71.02	20.0	1.73682	50.8
6	−565.60	0.5			13	−347.20			
7	310.20	45.0	1.62287	60.1					

$\Sigma d = 482.5$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.33	−0.092	0.029	−0.25	−0.17	26.92	−0.98%
h 或 ω %	LA′	ΔII′	x'_t	x'_s	$x'_t - x'_s$	K'_{T1}	$K'_{T0.7}$
100	0.35	−0.26	−0.65	−0.87	0.22	1.72	0.15
70	−0.41	−0.093	−0.36	−0.46	0.096	0.95	0.060

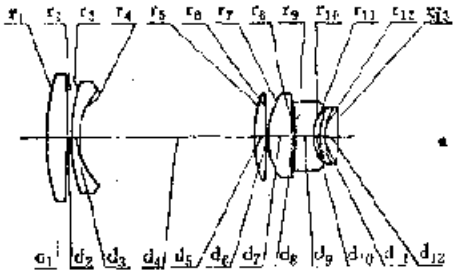




编号：01-00-054

具有负前组与多镜片正后组的放映物镜

E. F. L＝100　　B. F. L＝87.20　　FNo. ＝1.4　　F. A. ＝30°　　$L_{p_4'}$＝290

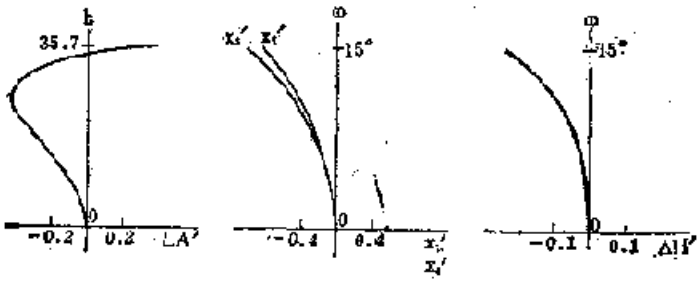


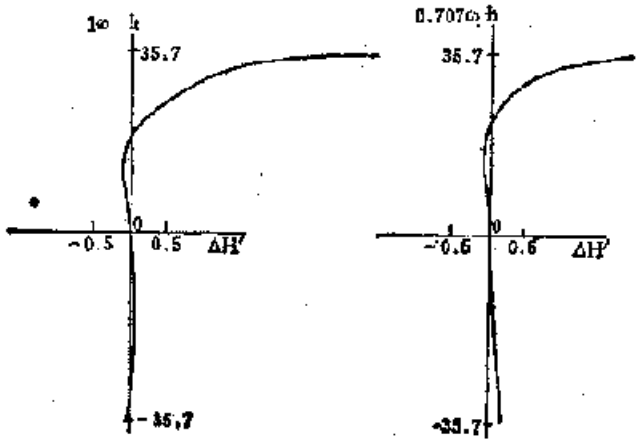
序号	r	d	n_e	ν_e	序号	r	d	n_e	ν_e
1	598.90	30.0	1.70442	34.7	8	980.20	5.0		
2	∞	10.0			9	−1697.50	35.0	1.76846	26.8
3	285.00	15.0	1.62287	60.1	10	64.50	7.0		
4	104.00	290.0			11	88.15	10.0	1.5203	58.8
5	242.00	20.0	1.62287	60.1	12	71.02	20.0	1.73692	50.8
6	−566.50	0.5			13	−347.23			
7	110.20	40.0	1.62287	60.1					

$\Sigma d = 482.5$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	H′	QP(1m)
	−0.36	−0.082	0.015	−0.25	−0.76	26.75	−0.91%

h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T_1}'	$K_{T_{0.7}}'$
100	0.38	−0.34	−0.81	−0.91	0.099	1.68	0.19
70	0.43	−0.088	−0.43	−0.47	0.039	1.05	0.085

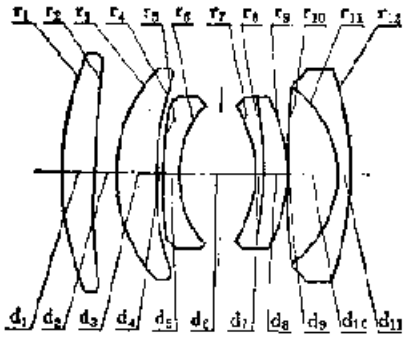




编号：01-00-055

四组元摄影物镜

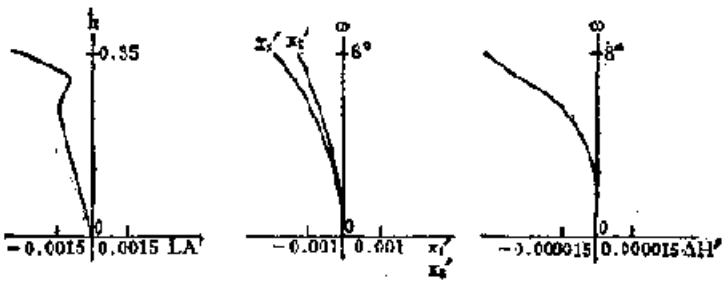
E. F. L＝1.0　　B. F. L＝0.55　　FNo. ＝1.4　　F. A. ＝16°

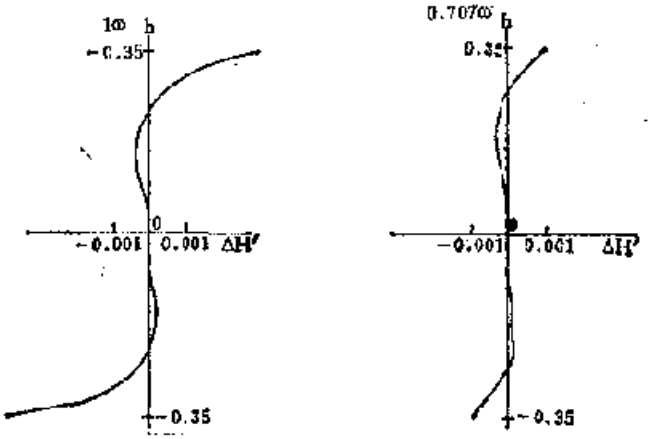


序号	1/r	d	n_e	ν_e	序号	1/r	d	n_e	ν_e
1	1.2502	0.1022	1.7919	47.2	7	−2.7105	0.0232	1.7231	29.3
2	0.3569	0.0572			8	−0.6471	0.0676	1.7919	47.2
3	2.3802	0.1124	1.7919	47.2	9	−2.0842	0.0019		
4	1.1574	0.0145			10	0.6306	0.1352	1.7479	44.7
5	0.8644	0.0469	1.7685	26.8	11	−3.8400	0.0483	1.7205	48.0
6	3.4861	0.2125*			12	−1.0454			

0.2125* = 0.1000 + 0.1125

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.0019	−0.000037	0.000088	−0.00061	−0.000018	0.14	−0.033%
h 或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	−0.0032	−0.000047	−0.0013	−0.0019	0.00068	−0.00029	−0.000076
70	−0.0014	−0.000013	−0.00068	−0.0010	0.00035	0.00014	−0.000054

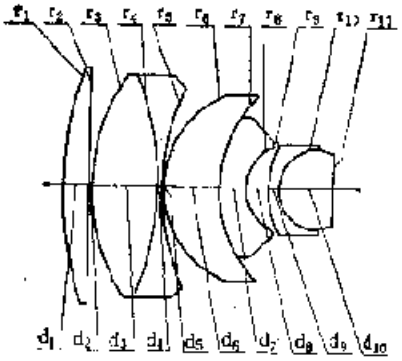




编号：01-00-056

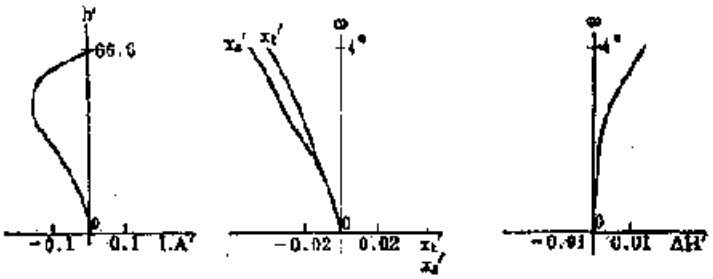
大孔径摄影镜头

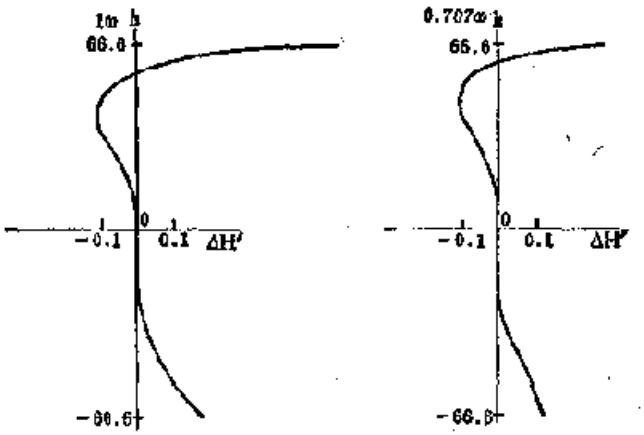
E. F. L＝100　　B. F. L＝7.12　　FNo. ＝0.75　　F. A. ＝8°



序号	r	d	n	v	序号	r	d	n	v
1	206.0	14.5	1.6940	54.6	7	71.7	14.50	1.7343	28.4
2	8300.0	0.2			8	24.19	13.42		
3	98.95	36.4	1.6725	44.7	9	57.5	5.44	1.6241	36.1
4	−105.4	2.43	1.7343	28.4	10	21.70	30.0	1.7922	50.2
5	130.0	0.2			11	∞			
6	52.40	30.7	1.6940	54.6					

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	Hi	QP(1ω)
	−0.47	−0.084	0.00083	−0.053	0.018	7	0.18%
h或ω%	$\Delta A'$	$\Delta H'$	x_1'	x_2'	$x_4'-x_3'$	K_{T1}	$K_{f0.7}$
100	0.016	0.013	−0.040	−0.050	0.0098	0.36	−0.025
70	−0.16	0.0048	−0.024	−0.027	0.0030	0.20	0.025

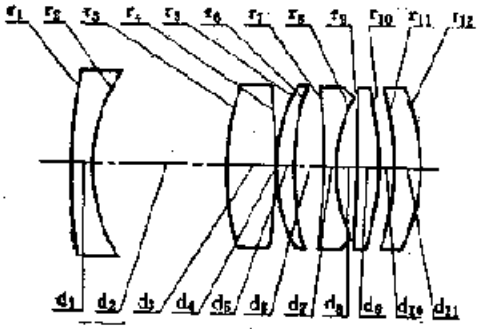




编号：01-00-057

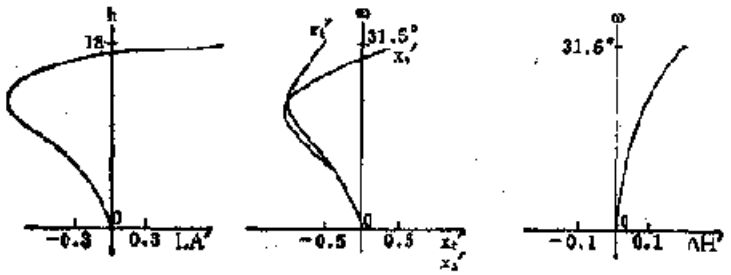
六分离广角物镜

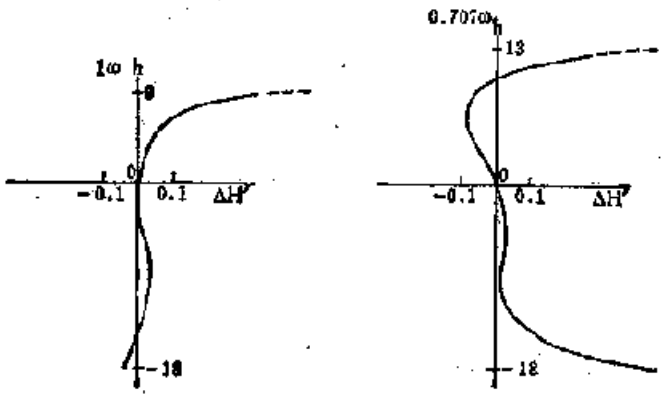
E. F. L＝100　　B. F. L＝103.11　　FNo. ＝2.8　　F. A. ＝63°



序号	r	d	n_d	ν_d	序号	r	d	n_d	ν_d
1	199.30	6.00	1.46456	65.79	7	−175.00	3.25	1.78470	26.10
2	47.20	37.68			8	44.17	5.46		
3	78.38	13.38	1.70180	41.14	9	398.04	6.28	1.58900	48.64
4	183.65	0.96			10	−98.30	4.15		
5	40.32	5.32	1.61720	54.04	11	−84.60	7.45	1.72000	50.31
6	68.77	8.19			12	−47.39			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.18	−0.12	−0.0090	−0.21	−0.16	61.35	0.30%
h 或 ω %	LA′	ΔH′	x_t	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	0.91	0.19	−3.58	0.25	−0.83	4.59	0.69
70	−0.90	0.086	−1.07	−1.09	0.018	2.03	0.15

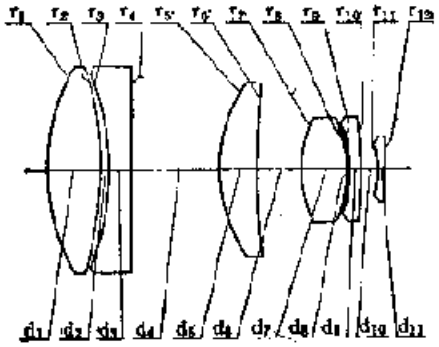




编号：01-00-058

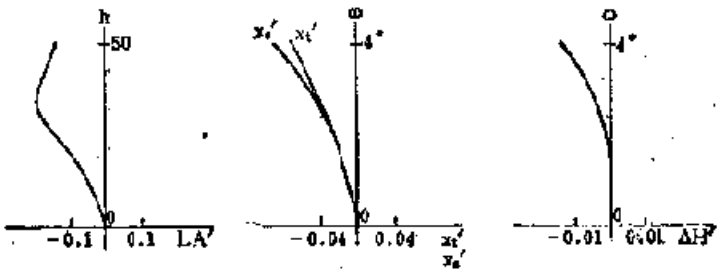
六片式珀兹伐型放映镜头

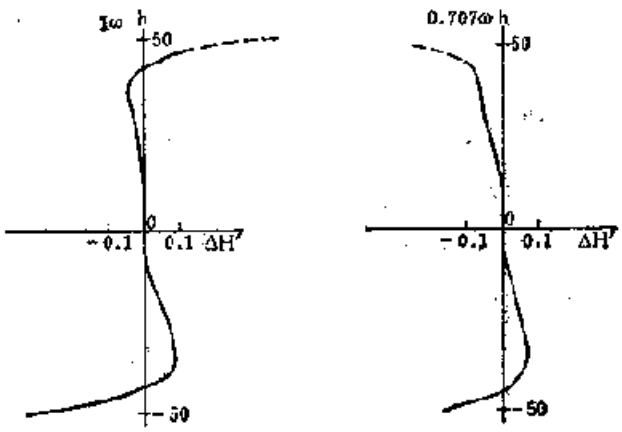
E. F. L＝100　　B. F. L＝9.8　　FNo. ＝1.0　　F. A. ＝8°



序号	r	d	n_D	ν	序号	r	d	n_D	ν
1	111.4	28.0	1.517	64.5	7	64.6	25.8	1.620	60.3
2	−180.8	4.9			8	−69.1	0.17		
3	136.0	13.3	1.720	29.3	9	−66.5	5.6	1.720	29.3
4	3240	48.1			10	−390	9.4		
5	76.6	22.4	1.588	61.2	11	−73.0	3.0	1.689	30.9
6	433.0	24.9			12	168.0			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QF(1ω)
	−0.33	0.038	0.0019	−0.047	−0.013	7	−0.19%
h或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	−0.14	−0.013	−0.078	−0.090	0.012	6.93	0.012
70	−0.19	−0.0048	−0.040	−0.045	0.0050	0.56	0.0067

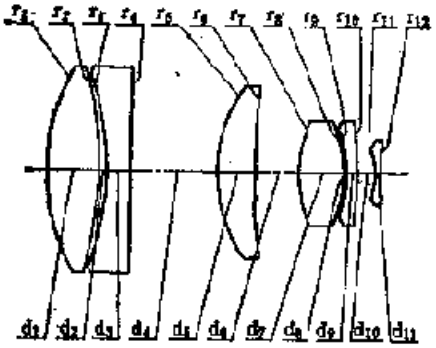




编号：01-00-059

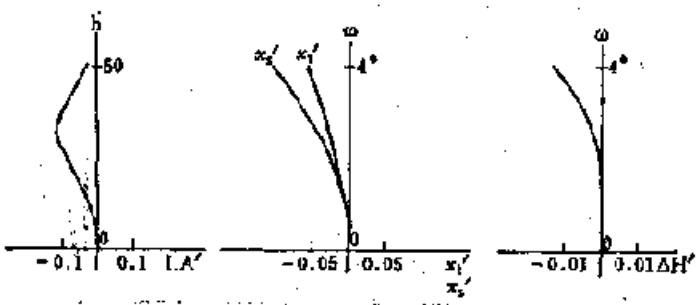
六片式珀兹伐型放映镜头

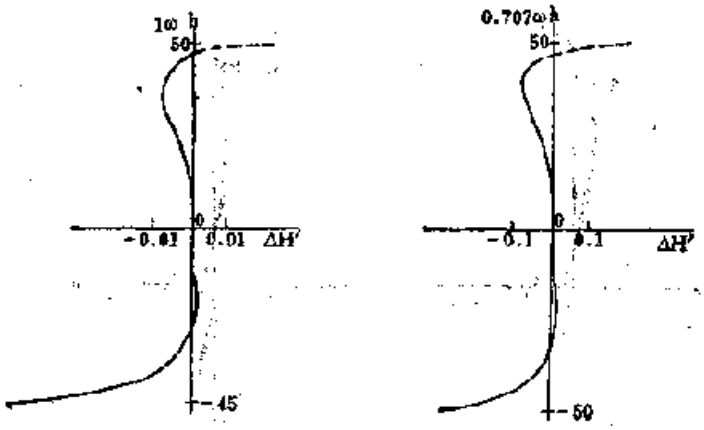
E. F. L＝100　　B. F. L＝11.5　　FNo. ＝1.0　　F. A. ＝8°



序号	r	d	n_D	ν	序号	r	d	n_D	ν
1	111.4	28.0	1.517	64.5	7	64.6	25.8	1.620	60.3
2	−180.8	4.9			8	−69.1	0.17		
3	−136.0	13.3	1.720	29.3	9	−66.5	5.6	1.720	29.3
4	3240	48.1			10	−231	9.4		
5	76.6	22.4	1.588	61.2	11	−73.0	3.0	1.689	30.9
6	289	24.9			12	344			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.24	−0.0069	0.012	−0.068	−0.013	7	−0.19%
h 或 ω %	LA′	ΔH′	x_1'	x_t'	$x_1'-x_t'$	K_{T_1}	$K_{T_{0.7}}$
100	−0.044	−0.013	−0.052	−0.10	0.054	7.45	−0.062
70	−0.11	−0.0047	−0.027	−0.053	0.026	7.87	0.045

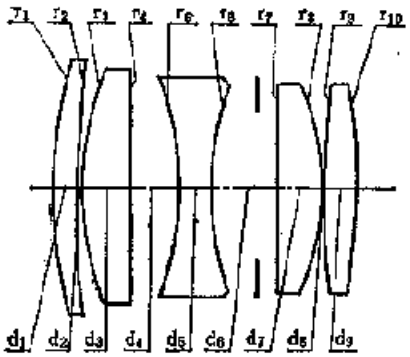




编号：01-00-060

五 组 元 物 镜

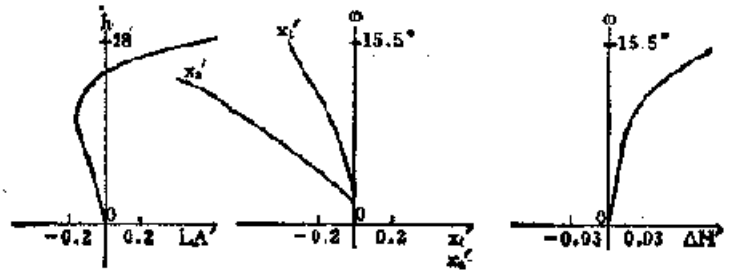
E. F. L＝100　　B. F. L＝68.51　　FNo. ＝1.8　　F. A. ＝31°

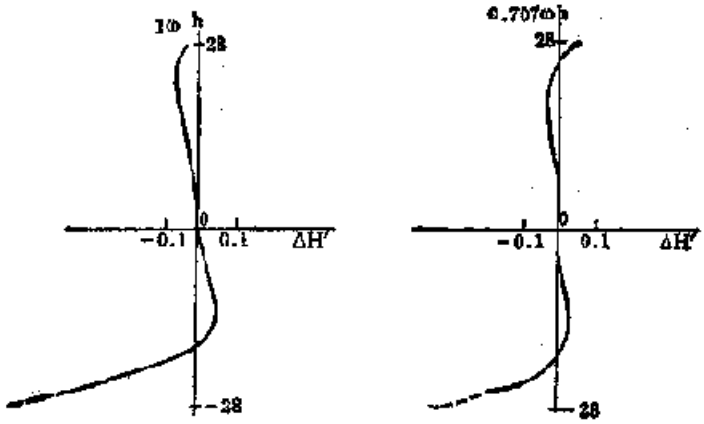


序号	r	d	n	v	序号	r	d	n	v
1	146.14	7.87	1.6570	60.9	6	81.69	13.86*		
2	350.39	0.79			7	−900.00	12.60	1.6570	57.2
3	78.98	13.38	1.6570	50.9	8	−68.50	0.16		
4	−792.12	13.94			9	218.98	9.45	1.6200	60.3
5	−81.69	8.98	1.7200	29.3	10	−166.14			

13.86* = 9.45 + 4.41

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.12	0.046	0.081	−0.35	0.038	27.72	0.36%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	0.61	0.10	−0.38	−1.35	0.96	− 0.72	− 0.054
70	−0.12	0.026	−0.20	−0.77	0.56	− 0.49	− 0.010

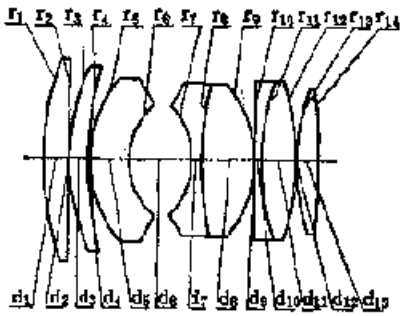




编号：01-00-061

高速摄影机物镜[1]

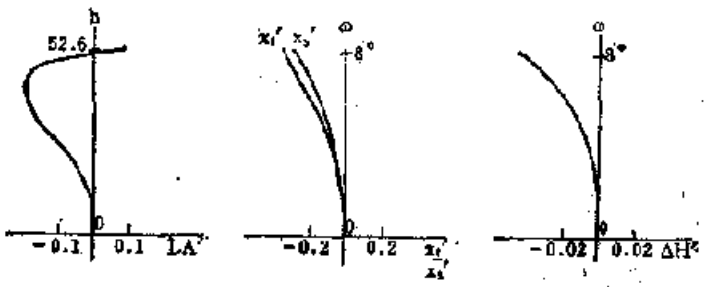
E. F. L＝100　　B. F. L＝60.58　　FNo. ＝0.85　　F. A. ＝16°

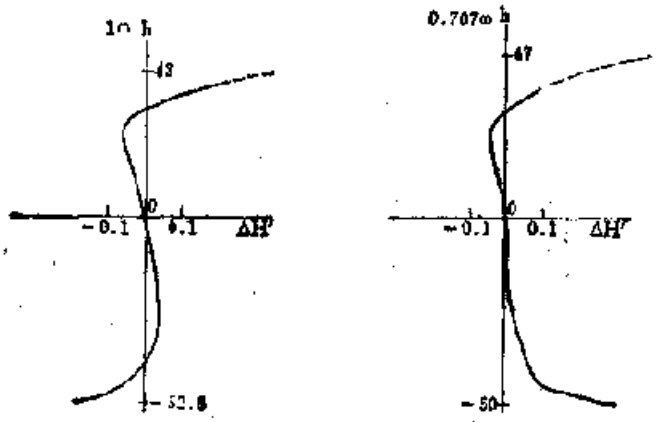


序号	r	d	n_D	ν_D	序号	r	d	n_D	ν_D
1	146.36	12.18	1.6200	60.3	8	203.10	28.42	1.7200	50.3
2	600.13	0.41			9	−61.98	0.41		
3	106.73	12.18	1.6200	60.3	10	−915.62	4.11	1.5900	39.2
4	263.48	0.41			11	132.13	18.27	1.6910	54.8
5	62.10	21.11	1.8410	28.1	12	−132.13	0.41		
6	36.36	25.53			13	118.00	12.18	1.6910	54.8
7	−41.54	5.08	1.7410	28.1	14	−406.86			

$\Sigma d = 150.70$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.24	−0.053	−0.0058	−0.15	−0.044	14.09	−0.30%
h 或 ω%	LA′	AH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	0.067	−0.043	−0.35	−0.29	−0.065	1.98	0.096
70	−0.17	−0.015	−0.16	−0.14	−0.021	1.50	0.098

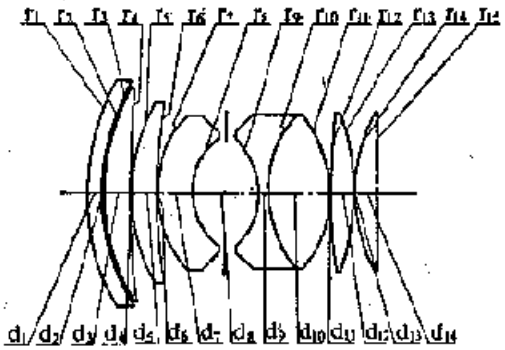




编号：01-00-062

七组元高速摄影机镜头

E. F. L＝100　　B. F. L＝60.64　　FNo. ＝0.95　　F. A. ＝16°

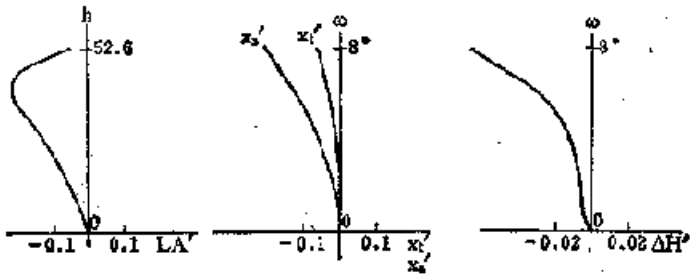


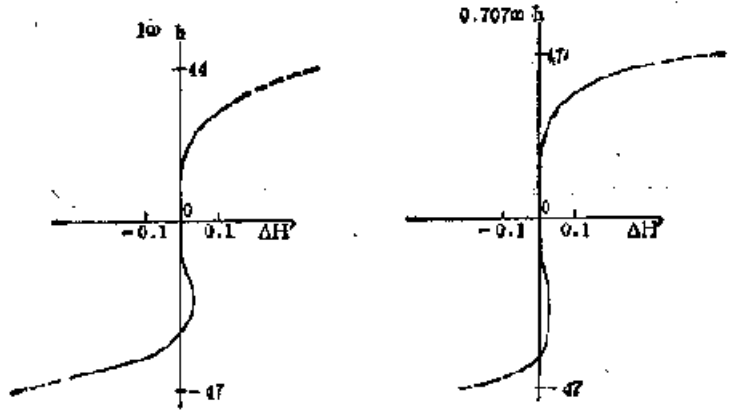
序号	r	d	n_e	ν_e	序号	r	d	n_e	ν_e
1	159.55	16.35	1.62287	60.1	9	−39.25	4.48	1.75846	26.8
2	3663.75	0.19			10	478.43	28.42	1.71615	53.7
3	229.09	10.32	1.66106	57.1	11	−57.62	0.19		
4	607.77	6.23			12	317.71	17.52	1.59142	61.0
5	∞	8.37	1.58482	40.6	13	−116.05	0.19		
6	597.28	0.19			14	94.60	16.35	1.69400	54.6
7	57.82	20.05	1.79180	25.9	15	509.65			
8	39.05	36.21*							

$\Sigma d = 155.06$

$36.21^* = 18.00 + 18.21$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QF(1ω)
	−0.35	0.047	0.045	−0.16	−0.068	14.05	−0.47%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	−0.047	−0.066	−0.061	−0.21	0.148	0.34	0.080
70	−0.21	−0.023	−0.028	−0.10	0.079	0.28	0.057

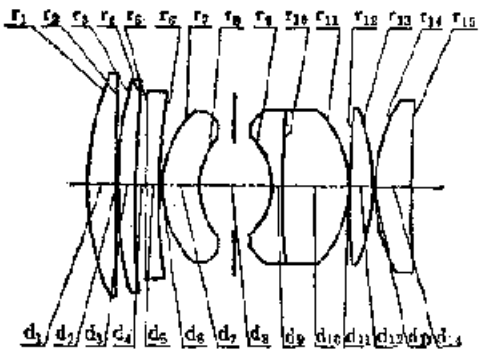




编号：01-00-063

七组元高速摄影机镜头

E. F. L＝100　　B. F. L＝57.28　　FNo. ＝0.95　　F. A. ＝16°

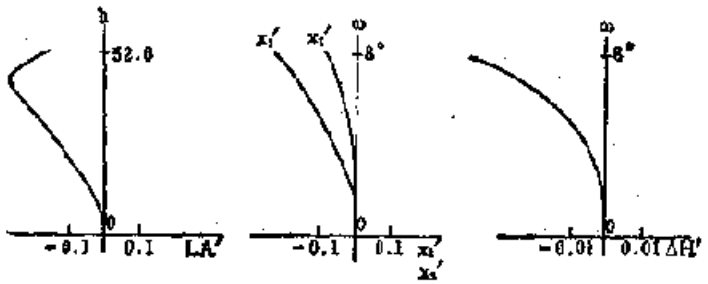


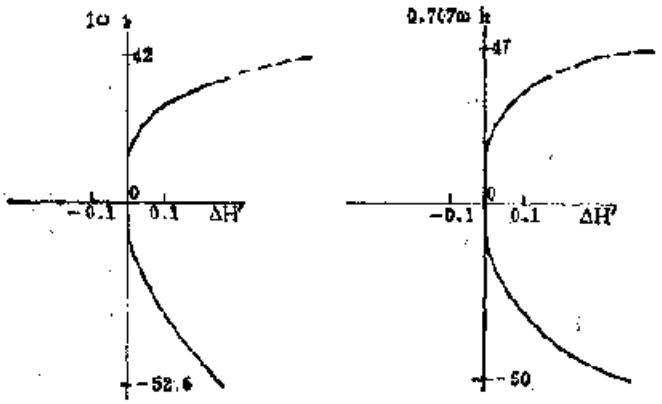
序号	r	d	n_e	ν_e	序号	r	d	n_e	ν_e
1	142.76	8.72	1.67245	44.7	9	−44.42	6.30	1.74703	27.8
2	190.17	0.44			10	71.19	37.93	1.73692	50.8
3	139.32	17.44	1.62541	56.6	11	−71.19	0.44		
4	540.20	0.44			12	399.00	13.08	1.71615	53.7
5	114.51	15.69	1.62287	60.1	13	−249.56	0.44		
6	282.61	0.44			14	94.64	15.69	1.71615	53.7
7	66.70	20.92	1.74703	27.8	15	640.26			
8	39.28	40.54*							

$\Sigma d = 178.31$

$40.54^* = 20.00 + 20.54$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.26	0.070	0.043	−0.17	−0.041	14.05	−0.26%
h 或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	−0.15	−0.037	−0.078	−0.22	0.14	1.73	0.21
70	−0.21	−0.013	−0.036	−0.11	0.076	1.05	0.16

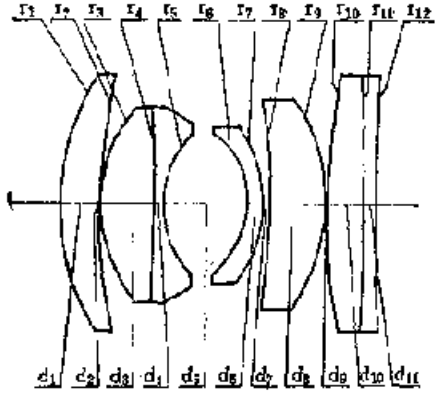




编号：01-00-064

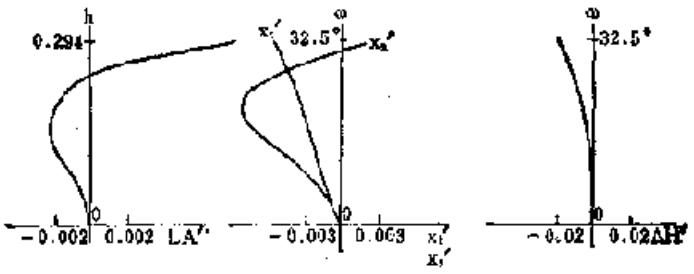
五分离大相对孔径广角摄影物镜

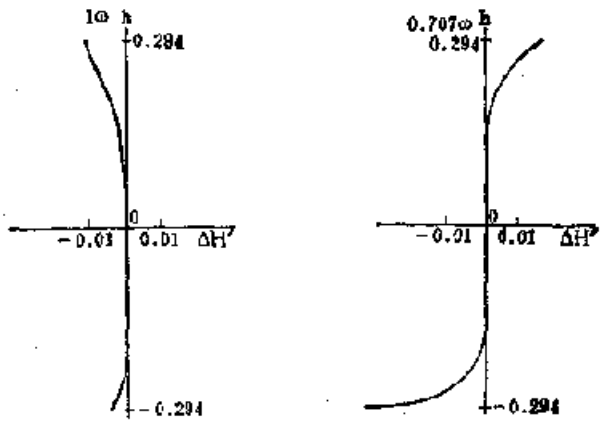
E. F. L＝1　　B. F. L＝0.56　　FNo. ＝1.7　　F. A. ＝65°



序号	r	d	n_d	ν_d	序号	r	d	n_d	ν_d
1	0.6329	0.1056	1.6937	53.5	7	−0.3000	0.0155		
2	1.5181	0.0023			8	−1.8252	0.1554	1.8038	45.8
3	0.4086	0.1414	1.6519	58.3	9	−0.4800	0.0016		
4	−4.692	0.0264	1.6231	37.0	10	1.9557	0.0948	1.6424	58.1
5	0.2548	0.2563			11	−3.0997	0.0365	1.7400	28.2
6	−0.2073	0.0451	1.7676	26.5	12	0.0439			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(Jω)
	−0.0023	0.00058	0.00082	−0.0058	−0.0040	0.63	−3.05%
h或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	0.0084	−0.019	−0.0054	0.0017	−0.0072	−0.0076	−0.0030
70	−0.0012	−0.0049	−0.0038	−0.0077	0.0039	−0.0078	−0.00015

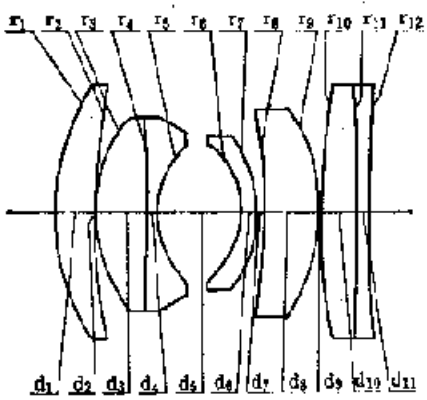




编号：01-00-065

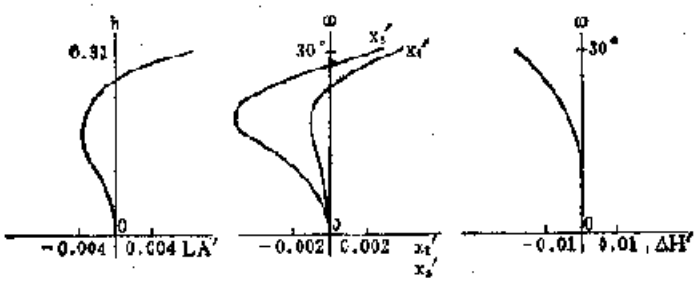
五分离大相对孔径广角摄影物镜

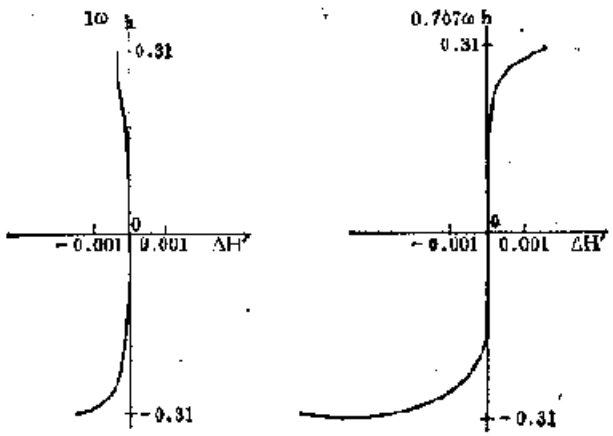
E. F. L＝1　　B. F. L＝0.55　　FNo. －1.6　　F. A. －60°



序号	r	d	n_d	ν_d	序号	r	d	n_d	ν_d
1	0.6208	0.1038	1.7338	51.0	7	－0.3573	0.0021		
2	1.3893	0.0014			8	－1.9632	0.1849	1.8038	46.8
3	0.4197	0.1436	1.6775	55.5	9	－0.4874	0.0021		
4	－5.0461	0.0277	1.6364	35.4	10	1.8744	0.0945	1.6424	58.1
5	0.2588	0.2560			11	－3.1115	0.0363	1.7400	28.2
6	－0.2659	0.0455	1.8055	25.5	12	5.5331			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	－0.0033	0.00011	0.0010	0.0050	－0.0048	0.57	－3.15%
h 或 ω%	LA′	ΔH′	x_t	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	0.0083	－0.018	0.0040	0.0025	0.0015	－0.0080	－0.0017
70	－0.0028	－0.0047	－0.0011	－0.0055	0.0044	－0.021	－0.0012

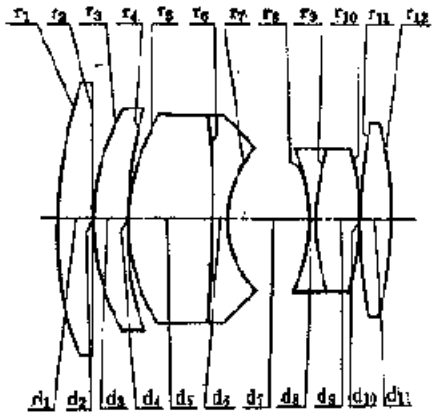




编号：01-00-066

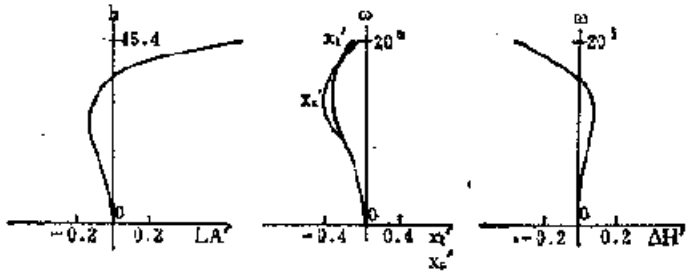
扩展的高斯型大孔径物镜

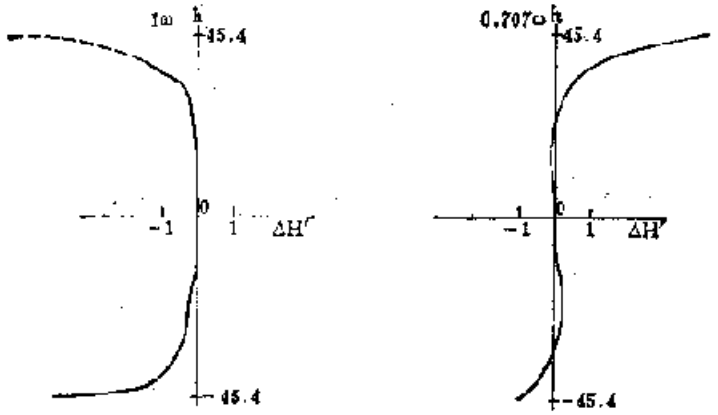
E. F. L＝100　　B. F. L＝41.21　　FNo. ＝1.1　　F.A. ＝40°



序号	r	d	n_d	ν_d	序号	r	d	n_d	ν_d
1	111.5	9.515	1.7201	50.3	7	28.0	22.235		
2	352.6	0.1			8	−44.4	1.8	1.5481	45.9
3	65.7	8.545	1.7342	51.0	9	80.8	11.36	1.7440	44.9
4	104.1	0.97			10	−75.4	0.1		
5	52.4	22.8	1.8422	58.1	11	150.4	7.96	1.7342	51.0
6	−329.1	4.175	1.7184	29.5	12	−106.5			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.33	0.078	−0.046	−0.63	0.48	36.39	−0.99%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{F1}'	$K_{F0.7}'$
100	0.72	−0.36	−0.17	−0.015	−0.15	−10.78	−0.35
70	−0.13	0.058	−0.40	−0.47	0.064	1.59	0.20

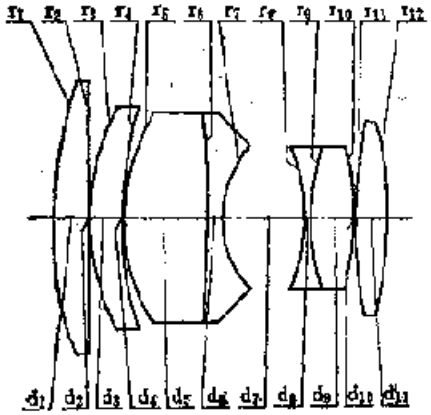




编号：01-00-067

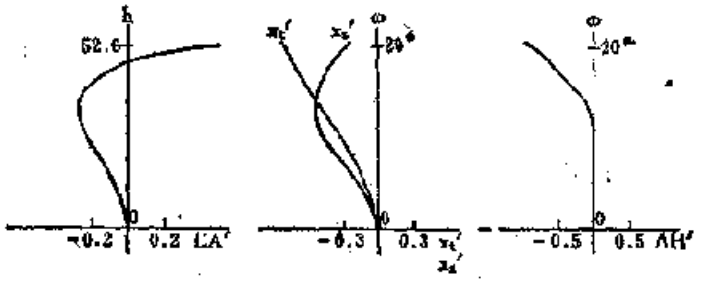
扩展的高斯型大孔径物镜

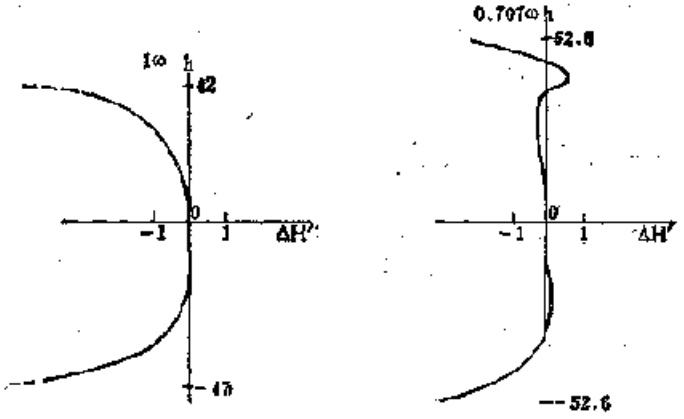
E. F. L＝100　　B. F. L＝40.08　　FNo. ＝0.95　　F. A. ＝40°



序号	r	d	n_d	ν_d	序号	r′	d	n_d	ν_d
1	136.1	10.175	1.7550	53.3	7	29.8	24.6		
2	482.9	0.2			8	−41.1	1.73	1.5235	50.8
3	69.8	9.31	1.7885	50.45	9	82.0	10.57	1.7440	44.9
4	105.6	0.93			10	−71.4	0.2		
5	58.1	26.13	1.6516	58.5	11	136.3	8.24	1.7550	53.3
6′	−215.7	4.12	1.7215	29.3	12	−105.6			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.66	0.042	−0.090	−0.69	0.23	36.43	−2.74%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	0.50	−0.99	−0.77	−0.26	−0.50	−39.54	−1.95
70	−0.27	−0.11	−0.55	−0.55	−0.0031	−2.43	−0.15

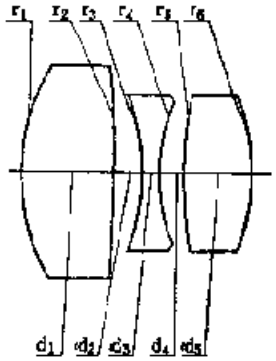




编号：01-00-068

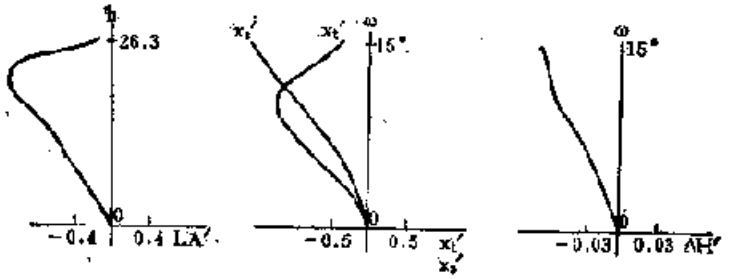
柯克三片型摄影物镜

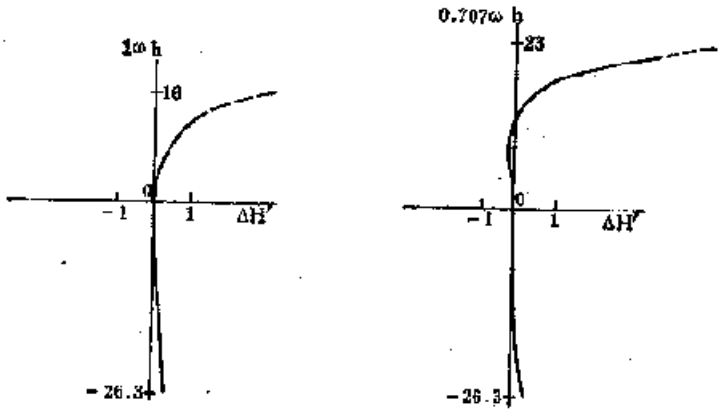
E. F. L＝100　　B. F. L＝71　　FNo. ＝1.9　　F. A. ＝±15°　　Lp_1'＝－22.0



序号	r	d	n_D	ν	序号	r	d	n_D	ν
		22.0*							
1	57.4	25.5	1.70	55.0	4	48.6	6.6		
2	－351.0	7.7			5	119.0	19.7	1.70	56.0
3	－63.3	4.5	1.67	32.0	6	－53.5			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	－0.46	－0.26	－0.11	－0.22	－0.11	26.37	－0.25%
h或ω%	LA′	ΔH′	x_t'	x_s'	x_t'-x_s'	K_{T1}	$K_{T0.7}$
100	－0.23	－0.068	－0.40	－1.63	1.23	4.60	3.94
70	－1.19	－0.054	－1.32	－1.05	－0.26	5.69	0.62

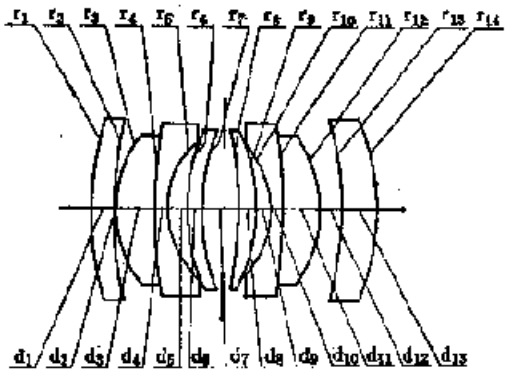




编号：01-00-069

八片式对称式摄影物镜

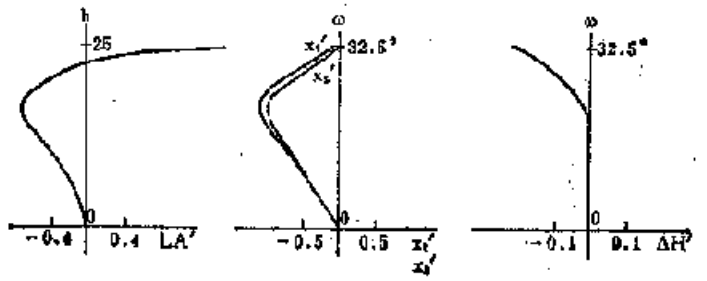
E. F. L＝100　　B. F. L＝69.09　　FNo. ＝2.0　　F. A. ＝65°

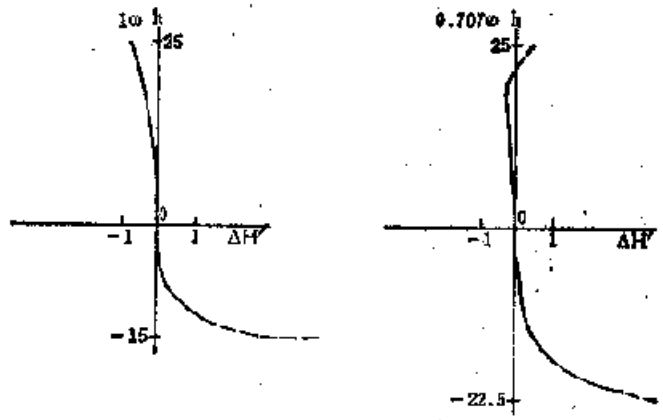


序号	r	d	n_D	ν_D	序号	r	d	n_D	ν_D
1	83.93	6.90	1.7200	42.0	8	−113.48	4.41	1.6910	54.8
2	117.03	0.08			9	−50.32	3.94		
3	32.11	10.40	1.7200	47.5	10	−25.32	2.99	1.6680	32.3
4	147.76	2.99	1.6490	33.8	11	−182.00	10.40	1.7200	47.5
5	23.64	5.40			12	−33.38	5.99		
6	47.36	4.41	1.6910	54.8	13	−84.72	8.90	1.7440	45.6
7	58.32	10.01*			14	−62.06			

10.01* = 5.91 + 4.10

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.36	−0.072	0.061	−0.40	0.016	63.71	−0.34%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T_1}'	$K_{T_{0.7}}'$
100	1.54	−0.22	−0.14	−0.032	−0.11	−40.07	3.95
70	−0.70	−0.023	−1.12	−1.01	−0.11	−28.85	0.39

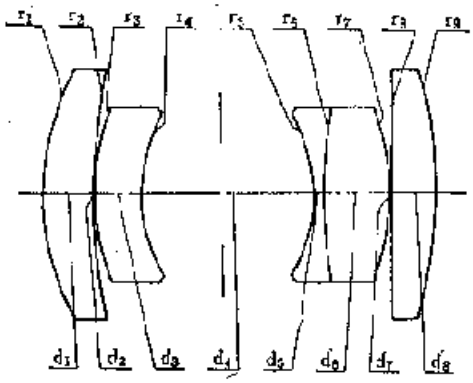




编号：01-00-070

改进的四组元高斯放映物镜

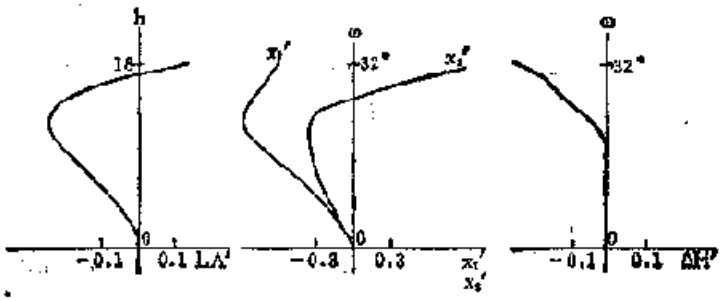
E. F. L＝100　　B. F. L＝71.28　　FNo. ＝2.8　　F. A. ＝64°

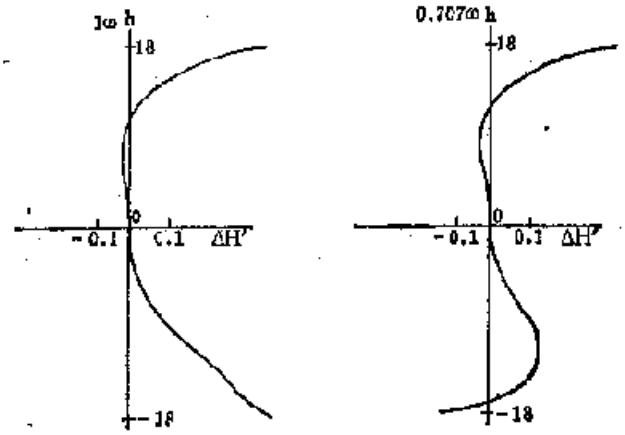


序号	r	d	n_D	ν_D	序号	r	d	n_D	ν_D
1	33.14	7.43	1.6200	60.3	6	72.28	9.06	1.7200	47.5
2	83.45	0.14			7	−30.80	0.14		
3	29.71	6.29	1.7506	27.8	8	−331.43	6.03	1.7506	27.8
4	20.74	24.06*			9	−59.45			
5	22.06	1.43	1.7200	29.3					

24.06* = 12.03 + 12.03

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.063	0.029	−0.027	−0.11	0.024	62.45	−0.41%
h或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.13	−0.25	−0.67	0.91	−1.58	0.38	0.13
70	0.25	−0.036	−0.95	−0.43	−0.51	0.11	0.071

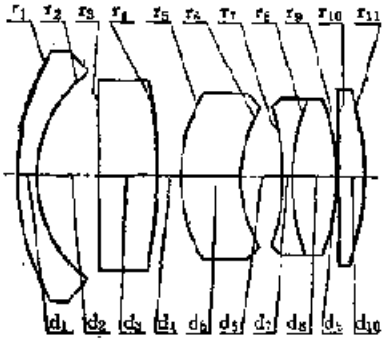




编号，01-00-071

具有负前组及多镜片正组的广角物镜

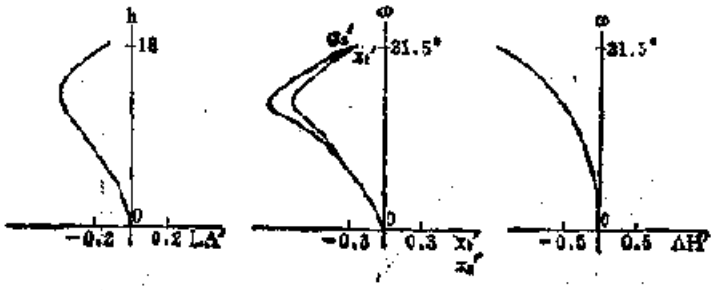
E. F. L＝100　　B. F. L＝105.2　　FNo. ＝2.8　　F. A. ＝68°　　Lp'_6＝3

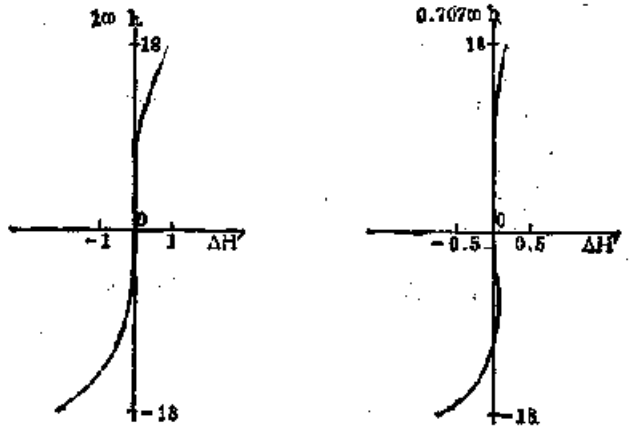


序号	r	d	n_e	ν	序号	r	d	n_e	ν
1	67.56	5.62	1.47236	67.10	7	−59.48	2.25	1.62410	36.10
2	35.23	16.87			8	51.90	12.65	1.62287	60.06
3	−954.17	16.59	1.69660	53.18	9	−51.90	0.28		
4	−133.68	7.03			10	−478.21	7.03	1.69400	54.60
5	43.89	16.87	1.74793	44.85	11	−82.57			
6	39.19	11.25							

$\Sigma d = 96.44$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.089	0.027	0.011	−0.18	−0.45	61.28	−2.29%
h 或 ω%	ΔA′	ΔH′	x'_t	x'_s	$x'_t - x'_s$	K_{T1}	$K_{T0.7}$
100	−0.13	−1.40	−0.24	−0.23	−0.014	−0.65	−0.21
70	−0.40	−0.52	−0.72	0.94	0.22	−0.34	−0.040

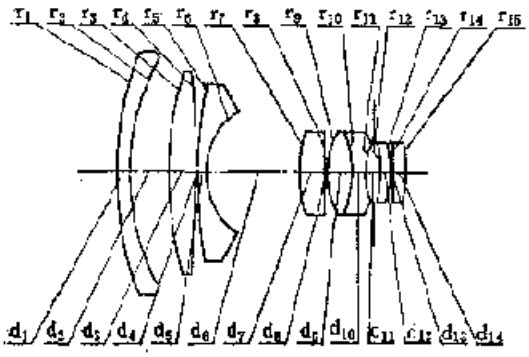




编号：01-00-072

具有负前组及多镜片正组的广角物镜

E. F. L＝100　　B. F. L＝146.58　　FNo. －2.8　　F. A. ＝80°

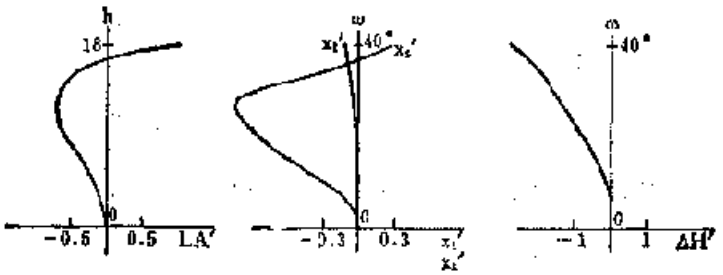


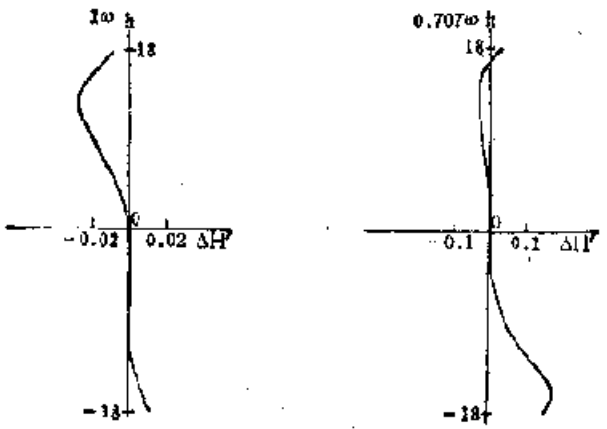
序号	r	d	n_e	ν	序号	r	d	n_e	ν
1	266.77	9.81	1.51871	63.96	9	67.32	15.69	1.55440	63.22
2	121.58	31.38			10	－120.32	13.73	1.72732	29.07
3	286.39	23.54	1.72823	37.81	11	62.14	11.77*		
4	－1006.28	0.39			12	－127.78	9.81	1.62287	60.06
5	430.21	7.58	1.62287	60.06	13	80.54	0.39		
6	59.63	76.50			14	566.69	9.81	1.62287	60.06
7	129.11	23.54	1.74703	27.82	15	－144.88			
8	∞	2.75							

$\Sigma d = 236.96$

$11.77^* = 6.00 + 5.77$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	－0.16	0.068	0.012	－0.21	－1.11	83.88	－3.42%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	Kf_1	$Kf_{0.7}$
100	1.04	－2.86	－0.12	0.25	－0.37	0.0030	－0.0094
70	－0.69	－1.41	－0.064	－1.04	0.97	0.094	0.046

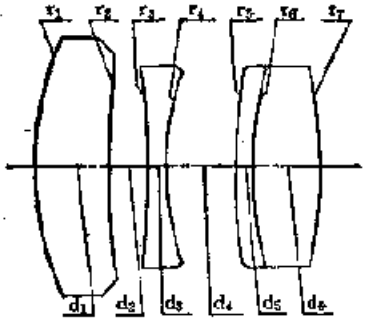




编号：01-00-073

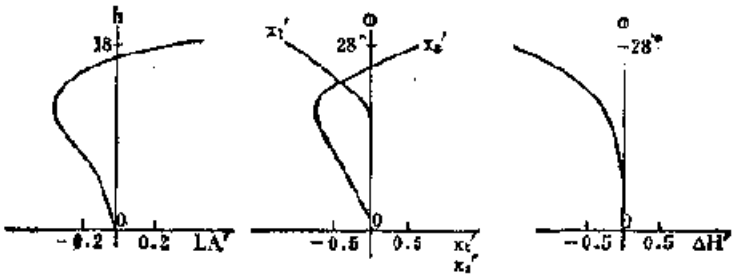
具有一个胶合组的三组元镜头

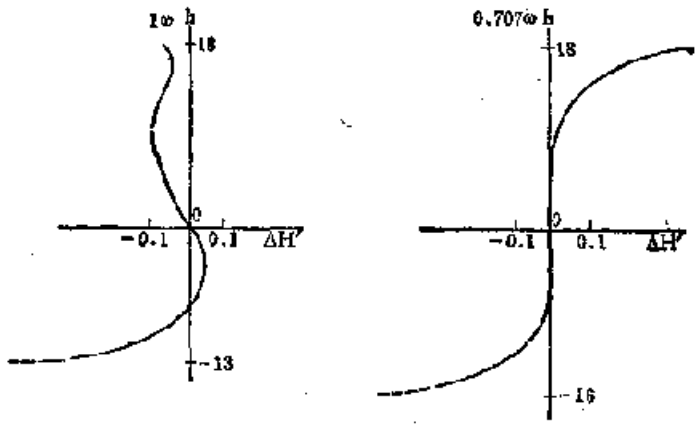
E. F. L＝100　　B. F. L＝79.91　　FNo.＝2.8　　F. A. ＝56°　　Lp'_4＝0.6



序号	r	d	nD	ν	序号	r	d	nD	ν
1	39.366	10.62	1.7130	53.89	5	263.753	2.39	1.6261	39.10
2	283.685	5.69			6	50.234	9.49	1.7550	53.28
3	99.940	2.53	1.6236	36.75	7	−69.533			
4	35.715	9.63							

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.094	−0.00087	0.040	−0.22	−0.20	53.16	−2.81%
h 或 ω%	LA′	ΔH′	x'_t	x'_s	$x'_t - x'_s$	K_{T1}	$K_{Tc.T}$
100	0.42	1.49	−1.21	0.67	−1.88	−0.06	−0.20
70	−0.36	−0.34	−0.14	−0.74	0.59	−0.20	−0.023

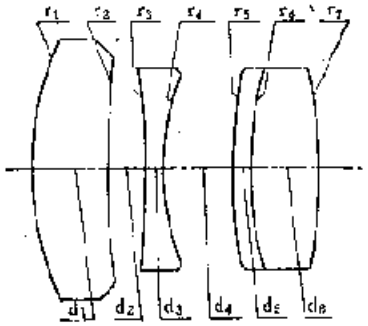




编号：01-00-074

具有一个胶合组的三组元镜头

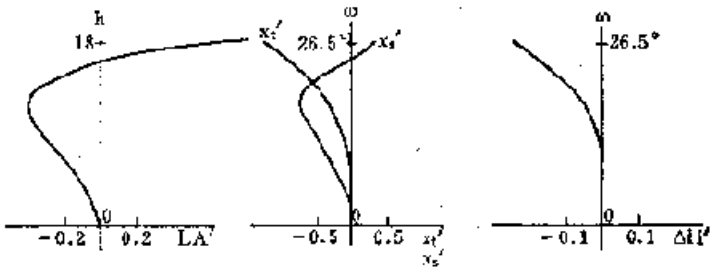
E. F. L＝100　　B. F. L＝82.62　　FNo. ＝2.8　　F. A. ＝58°　　Lp'_4＝0.5

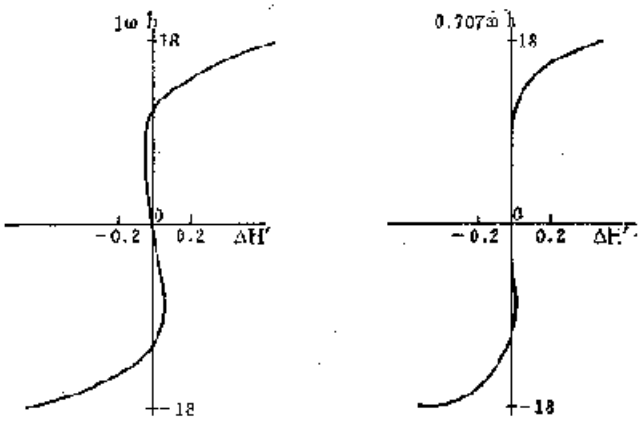


序号	r	d	n_D	v	序号	r	d	n_D	v
1	42.348	8.48	1.7335	51.04	5	∞	2.55	1.6204	37.97
2	895.654	7.25			6	53.647	7.61	1.7440	44.90
3	−72.448	1.97	1.6547	32.27	7	−32.704			
4	39.706	8.95							

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.11	0.0030	0.032	−0.19	−0.041	49.75	−0.47%

h 或 ω%	LA′	ΔH′	x'_1	x'_3	$x'_1-x'_6$	K'_{F1}	$K'_{F0.7}$
100	0.79	−0.23	−1.21	0.27	−1.492	0.012	0.023
70	−0.39	−0.061	−0.30	−0.72	0.41	−0.0083	−0.0045

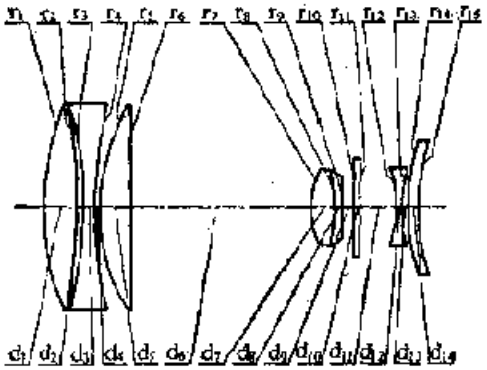




编号：01-00-075

改型珀兹伐镜头

E. F. L＝1　　B. F. L＝0　　FNo. ＝1.2　　F. A. ＝12°

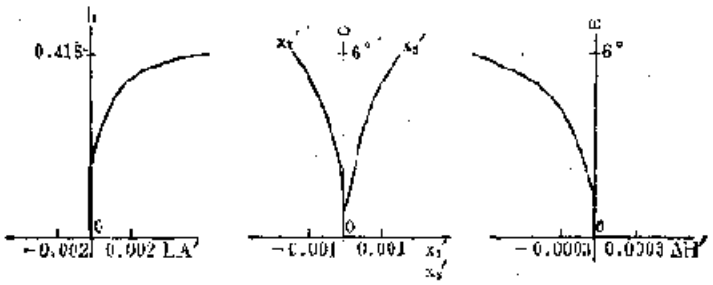


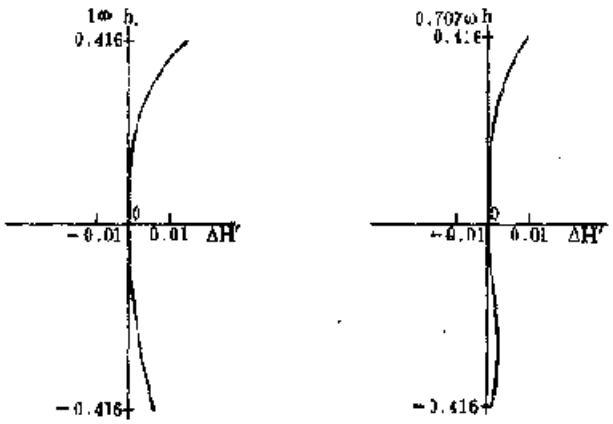
序号	r	d	n_E	ν_E	序号	r	d	n_E	ν_E
1	1.133	0.149	1.605	60.5	9	5.88	0.0516		
2	−2.712	0.030			10	∞*	0.030	1.51829	
3	−1.471	0.0485	1.792	25.9	11	∞	0.1585		
4	2.117	0.015	·		12	−0.433	0.015	1.813	25.3
5	0.869	0.1365	1.623	60.1	13	0.640	0.0212		
6	∞	0.786			14	0.948	0.046	1.51829	
7	0.358	0.103	1.625	58.6	15	0.948**			
8	0.564	0.0273	1.813	25.3					

* 表示滤色片。

** 表示靶面。

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00014	0.00099	−0.00039	0.00084	−0.00069	0.10	−0.88%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	0.0067	−0.00097	−0.0014	0.0015	−0.0029	0.010	0.0037
70	0.0010	−0.00032	−0.00060	0.00074	−0.0013	0.0051	0.0019

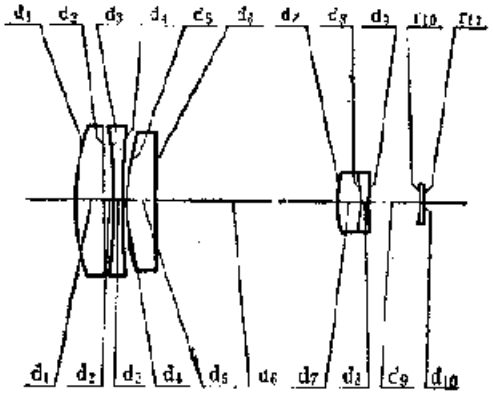




编号：01-00-076

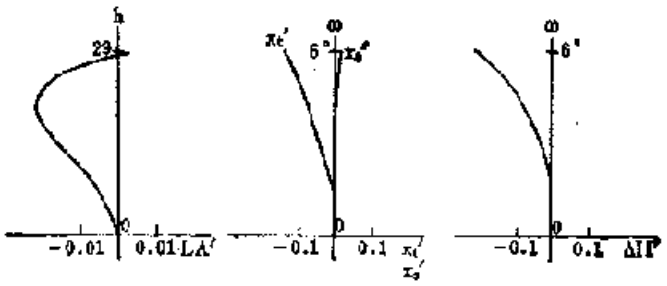
改型珀兹伐镜头

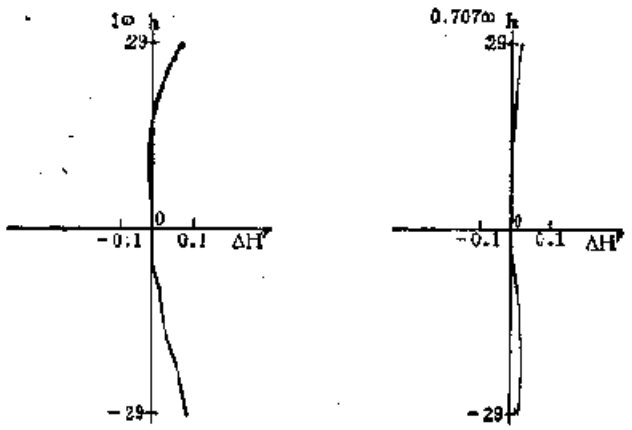
E. F. L＝100　　B. F. L＝5.33　　FNo. ＝1.7　　F. A. ＝12°



序号	r	d	n_E	ν_E	序号	r	d	n_E	ν_E
1	100.2	13.4	1.605	60.4	7	35.65	10.3	1.625	56.6
2	4070.0	4.26			8	−57.7	2.71	1.702	38.3
3	196.2	4.57	1.792	25.9	9	201.5	21.8		
4	498.5	1.3			10	−72.2	1.55	1.813	25.2
5	112.0	13.7	1.625	56.6	11	64.7			
6	3190	80.5							

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.015	−0.00026	−0.011	0.0095	−0.11	10.53	−1.97%
h 或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	0.0030	−0.20	−0.13	0.013	−0.14	0.077	0.037
70	−0.024	−0.071	0.071	0.000020	−0.071	0.015	0.0095

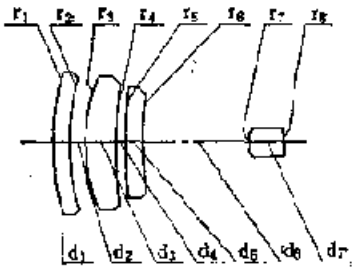




编号：01-00-077

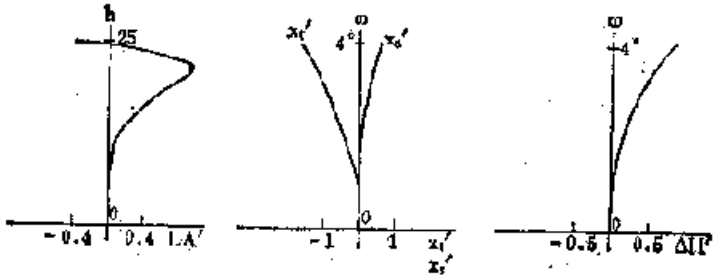
红 外 望 远 物 镜

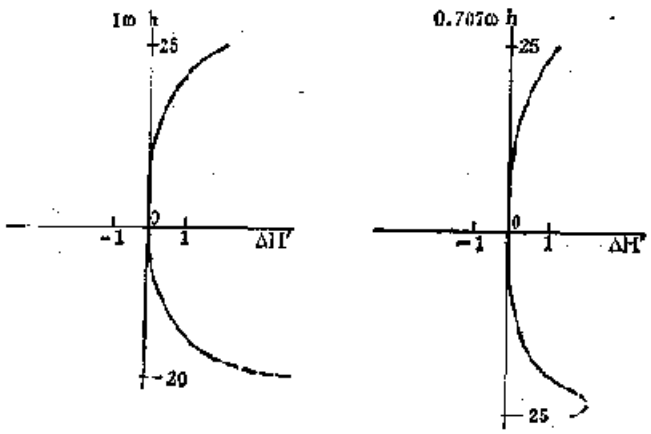
E. F. L＝100　B. F. L＝1.48　FNo. ＝2　F. A. ＝8°　λ＝80000～80000 Å



序号	r	d	$n_{4.26m\mu}$		序号	r	d	$n_{4.26m\mu}$	
1	66.4	4.6	3.42	硅	5	193.7∞	4.9	4.02	锗
2	61.72	5.0			6	70.0	30.0		
3	41.60	8.6	3.42	硅	7	−7.93	9.3	4.02	锗
4	118.6	2.05			8	−26.66			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.011	0.16	−0.12	0.19	0.32	7.44	11.26%
h或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	−0.46	0.83	−1.55	0.49	−2.05	−16.82	1.12
70	0.41	0.26	−0.79	0.27	−1.07	−15.00	0.50

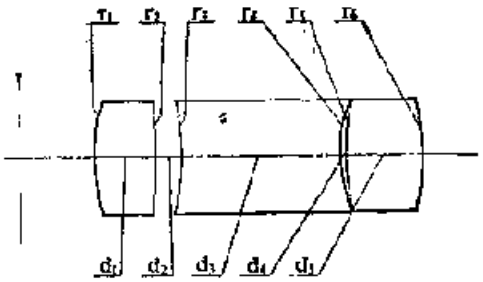




编号：01-00-078

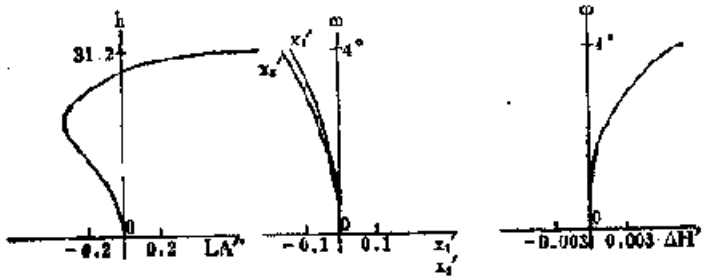
三 片 式 物 镜

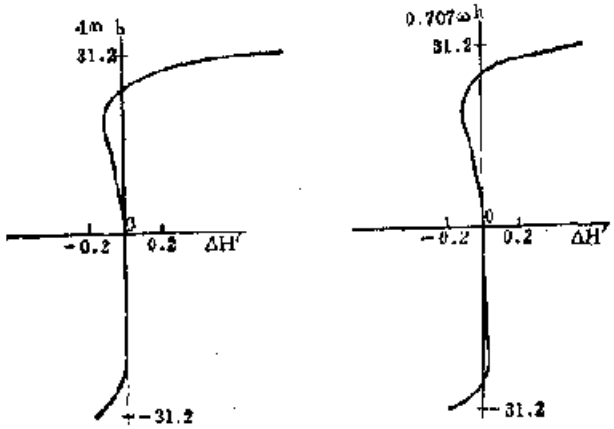
E. F. L＝100　　B. F. L＝52.12　　FNo.＝1.6　　F. A.＝8°　　Lp_1'＝－14.3



序号	r	d	n_d	ν_d	序号	r	d	n_d	ν_d
		14.3*							
1	72.9	18.6	1.75	50.6	4	48.4	1.89		
2	－189.9	7.43			5	75.0	22.9	1.75	50.6
3	－90.3	48.6	1.72	29.3	6	－75.0			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP (1ω)
	－0.27	－0.057	0.00061	－0.029	0.0045	7.06	0.11%
h或ω%	LA′	ΔH′	x_1'	x_3'	$x_1'-x_3'$	K_{T1}	$K_{T0.7}$
100	0.78	0.0078	－0.12	－0.14	0.021	0.35	－0.049
70	－0.32	0.0026	－0.068	－0.075	0.0068	0.19	－0.045

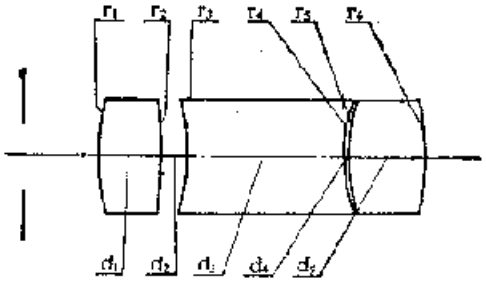




编号：01-00-079

三 片 式 物 镜

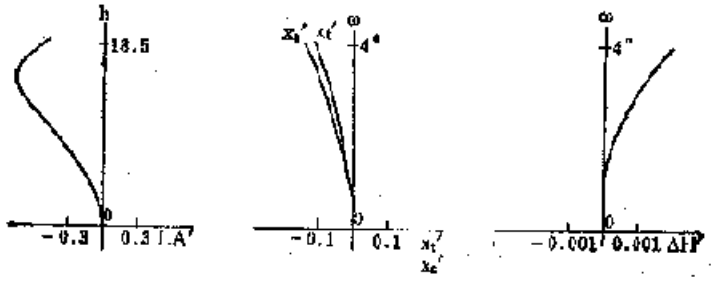
E. F. L＝100　　B. F. L＝70.28　　FNo. ＝2.7　　F. A. ＝8°　　$Lp_1'=-14.3$

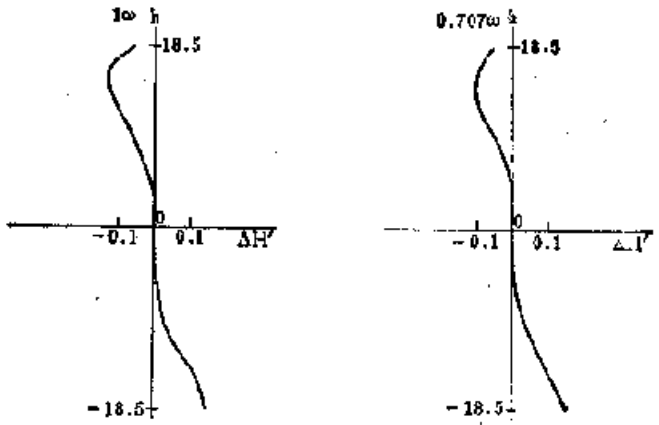


序号	r	d	n_d	ν_d	序号	r	d	r_d	ν_d
		14.3*							
1	52.0	15.7	1.61	58.6	4	47.6	2.9		
2	−83.7	1.3			5	135	31.5	1.61	58.6
3	−63.4	21.0	1.61	37.0	6	−69.7			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.12	−0.0060	0.00053	−0.010	0.00062	7.01	0.026%

h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'\ x_s'$	K_{T1}'	$K_{T0.7}'$
100	−0.52	0.0018	−0.11	−0.14	0.020	0.045	−0.0078
70	−0.65	0.00052	−0.060	−0.070	0.0095	0.030	−0.0052

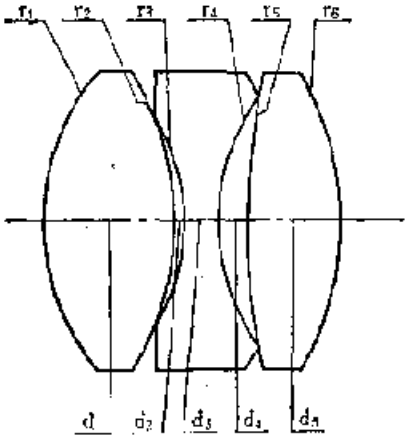




编号：01-00-080

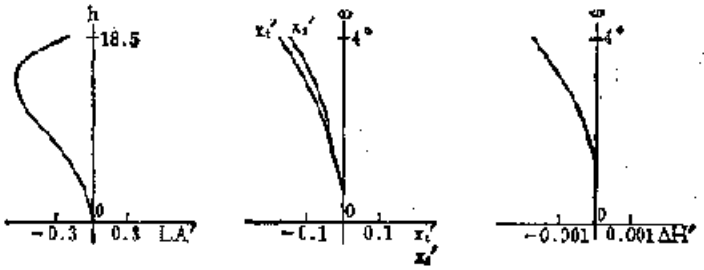
三 片 式 物 镜

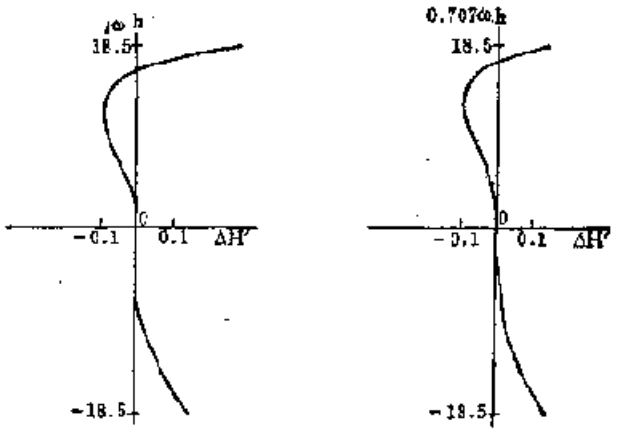
E. F. L＝100　　B. F. L＝65.63　　FNo. ＝2.7　　F. A. ＝8°　　Lp_1'＝－31.2



序号	r	d	n_D	ν_D	序号	r	d	n_D	ν_D
		31.2*							
1	50.4	28.6	1.61	58.8	4	46.6	6.84		
2	－59.0	1.61			5	143	20.2	1.61	58.8
3	－43.6	7.61	1.62	36.6	6	－65.4			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP (1ω)
	－0.12	－0.016	－0.00081	－0.0099	－0.00074	7.07	－0.028%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T_1}'	$K_{T_{0.7}}'$
100	－0.23	－0.0018	0.17	－0.15	－0.017	0.21	－0.0070
70	－0.60	－0.00368	－0.090	－0.079	－0.010	0.13	－0.0082

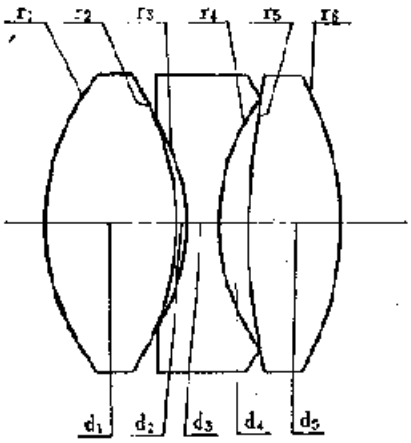




编号：01-00-081

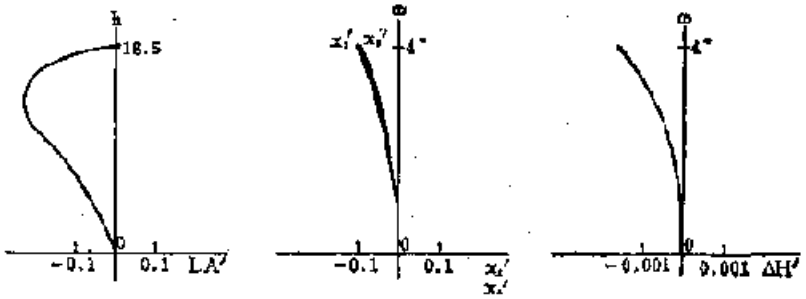
三 片 式 物 镜

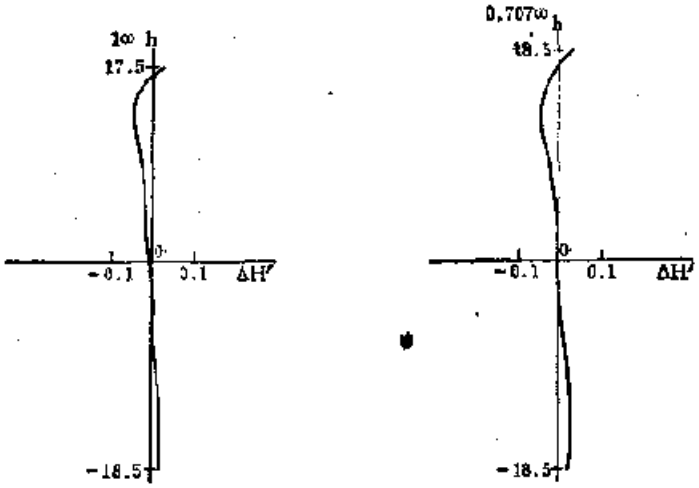
E. F. L＝100　　B. F. L＝69.14　　FNo. ＝2.7　　F. A. ＝6°　　Lp_1'＝－14.5



序号	r	d	n_D	ν_D	序号	r	d	n_D	ν_D
		14.5*							
1	54.7	28.9	1.75	52.4	4	46.3	11.1		
2	－313	5.0			5	140	12.6	1.75	52.4
3	－69.3	5.0	1.72	29.3	6	－62.0			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	－0.051	－0.0092	－0.00026	－0.0068	－0.00062	7.07	－0.023%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	－0.0090	－0.0015	－0.10	－0.10	－0.0018	0.046	－0.012
70	－0.22	－0.00058	－0.054	－0.052	－0.0024	0.025	－0.010

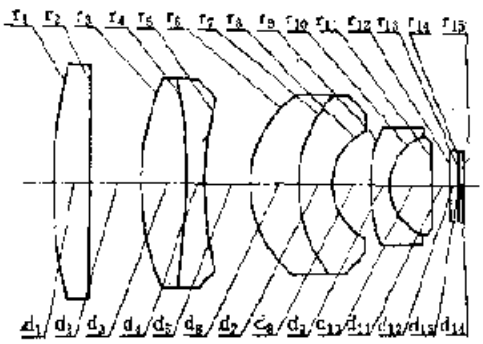




编号：01-00-082

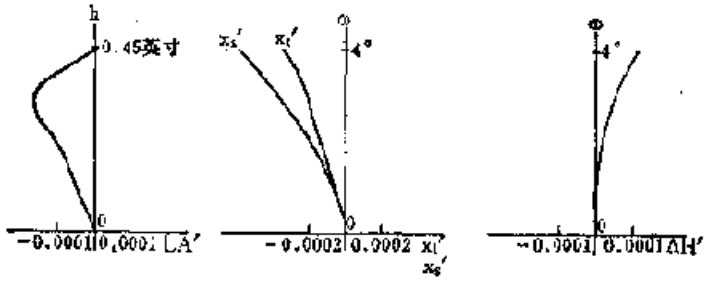
改进的三组元透镜系统

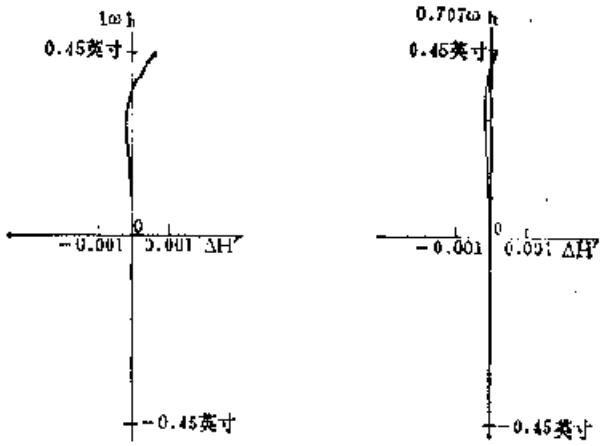
E. F. L＝1英寸　　B. F. L＝0　　FNo. ＝1.1　　F. A. ＝8°



序号	r	d	n_E	ν_E	序号	r	d	n_E	ν_E
1	2.08	0.142	1.721	47.7	9	0.621	0.032	1.592	52.9
2	33.6	0.21			10	0.2031	0.170	1.792	50.2
3	0.987	0.182	1.721	47.7	11	11.82	0.0758		
4	−2.035	0.078	1.813	25.3	12	∞	0.028	1.5163	
5	1.771	0.178			13	∞	0.03536		
6	0.435	0.194	1.694	54.6	14	∞	0.015	1.5163	
7	0.641	0.142	1.768	26.8	15	∞			
8	0.225	0.150							

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1 m)
	−0.00026	−0.00013	0.000025	0.00030	0.00012	0.069	0.15%
h或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	−0.0000074	0.00011	−0.00034	−0.00058	0.00023	0.00029	−0.000036
70	−0.00017	0.000044	−0.00022	−0.00032	0.000091	0.000092	−0.000064

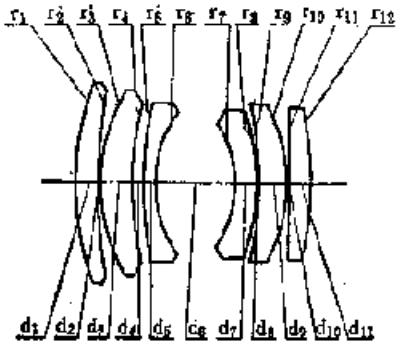




编号：01-00-083

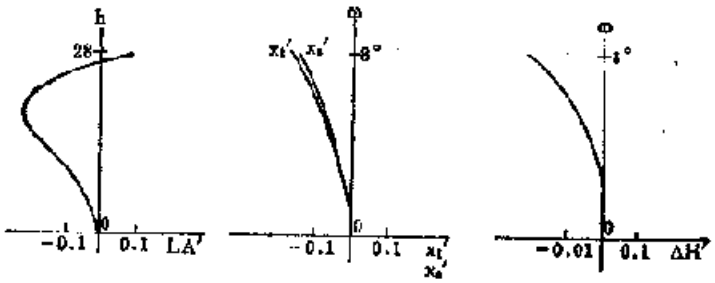
六片式大口径长工作截距摄影物镜

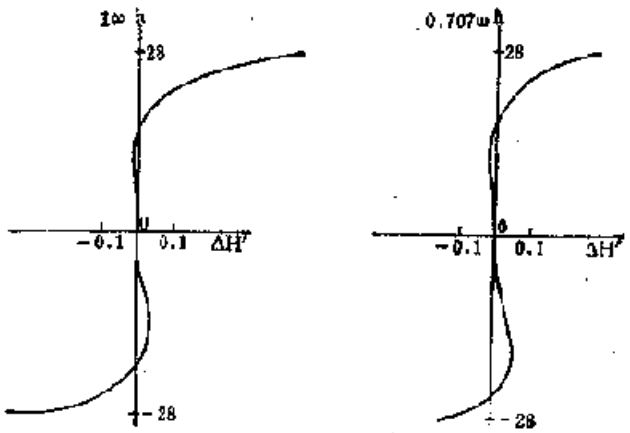
E. F. L＝100　　B. F. L＝74.84　　FNo. ＝1.8　　F. A. ＝16°



序号	r	d	n	ν	序号	r	d	n	ν
1	71.750	7.0	1.8377	42.0	7	−31.500	6.10	1.7615	26.5
2	191.724	0.20			8	−70.335	0.20		
3	48.800	9.00	1.8372	43.3	9	−109.300	8.00	1.8042	46.6
4	102.065	3.00			10	44.537	0.10		
5	135.000	3.00	1.7408	27.7	11	670.000	6.50	1.7130	53.9
6	31.162	22.00			12	−93.563			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP (1ω)
	−0.13	0.311	−0.00073	−0.026	−0.010	14.05	−0.14%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{TC\text{-}7}$
100	0.080	−0.020	−0.16	−0.15	−0.0048	0.059	0.030
70	0.21	−0.0069	−0.087	−0.083	−0.0034	0.053	0.024

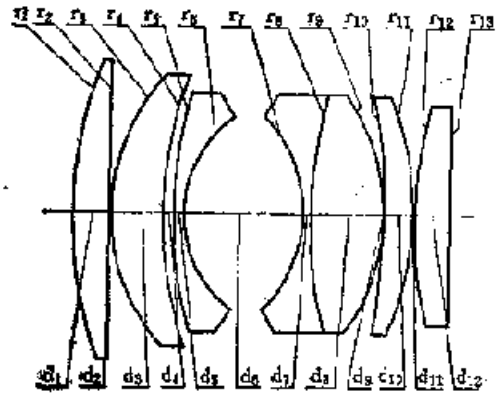




编号：01-00-084

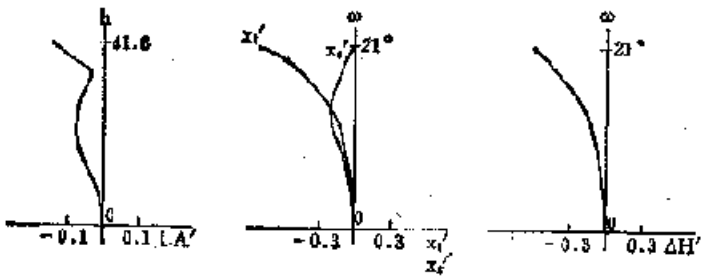
大孔径七片式物镜

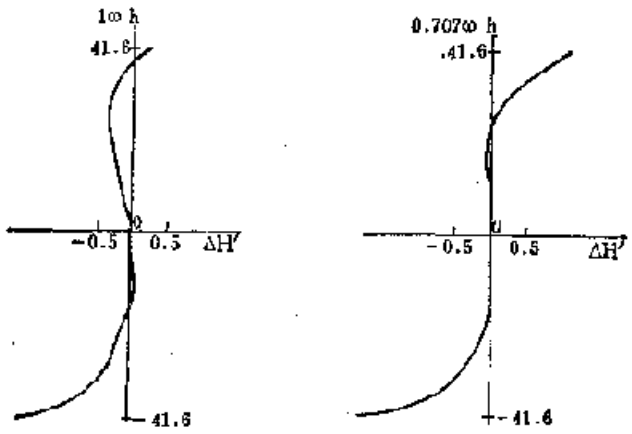
E. F. L＝100　　B. F. L＝63.48　　FNo. ＝1.2　　F. A. ＝42°



序号	r	d	n_d	ν_d	序号	r	d	n_d	ν_d
1	110.000	10.00	1.80416	46.6	8	131.500	20.00	1.77252	49.6
2	586.748	0.20			9	－56.806	0.20		
3	51.600	14.50	1.79446	45.4	10	－160.000	8.50	1.77252	49.6
4	100.426	3.50			11	－74.352	0.20		
5	119.000	3.00	1.71736	29.5	12	122.000	9.50	1.77252	49.6
6	32.792	32.50			13	2092.573			
7	－36.500	2.00	1.68893	31.1					

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_6	HJ	QP(1ω)
	－0.16	－0.053	0.071	－0.32	－0.48	38.38	－1.60%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	－0.14	－0.81	－0.81	－0.00072	－0.81	－0.64	－0.27
70	－0.065	－0.22	－0.25	－0.21	－0.044	0.14	－0.092

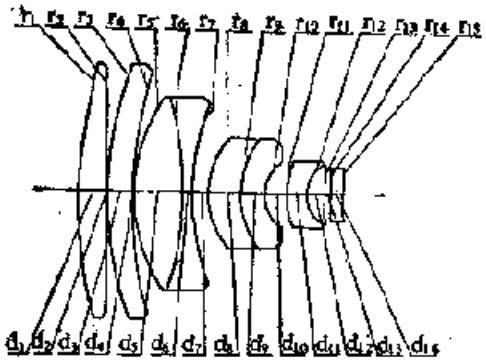




编号：01-00-085

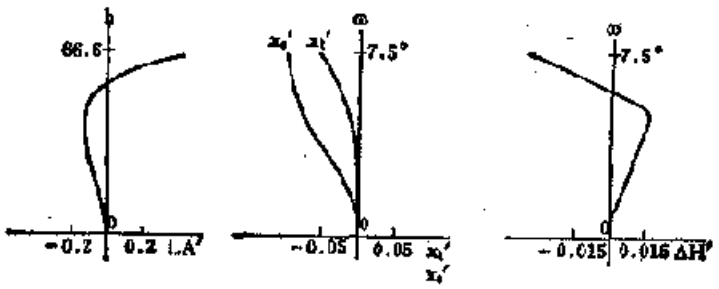
用于电视摄象机的大孔径物镜

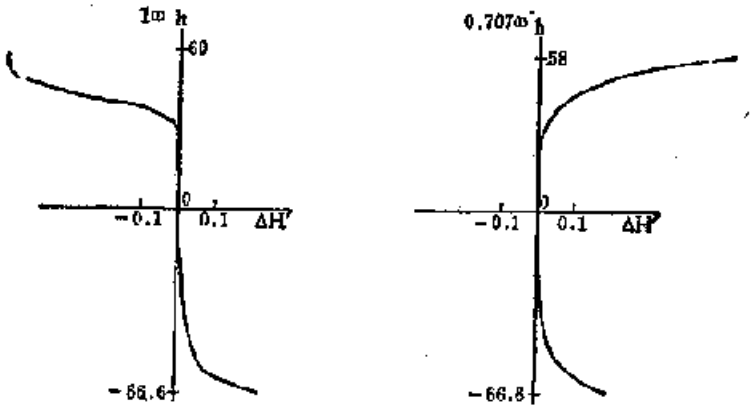
E. F. L＝100　　B. F. L＝6.1　　FNo. ＝0.75　　F. A. ＝15°



序号	r	d	n_E	ν_E	序号	r	d	n_E	ν_E
1	280.1	16.35	1.694	54.5	9	51.65	14.5	1.768	26.7
2	∞	0.15			10	22.90	14.4		
3	207.8	15.1	1.694	54.5	11	61.6	12.0	1.592	52.7
4	247	0.03			12	19.90	10.28	1.792	50.2
5	99.3	29.0	1.721	47.7	13	1547	2.5		
6	−206	7.8	1.813	25.2	14	∞	6.55	1.525	59.2
7	161	8.7			15	∞			
8	44.4	20.3	1.694	54.5					

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.063	−0.058	0.024	−0.22	0.096	13.08	−0.27%
h或ω%	LA′	ΔH′	x_t	x_s	x_t-x_s	K_{T1}	$K_{T0.7}$
100	0.042	−0.036	−0.051	−0.10	0.055	5.03	−0.19
70	−0.011	0.015	−0.020	−0.083	0.062	1.04	0.086



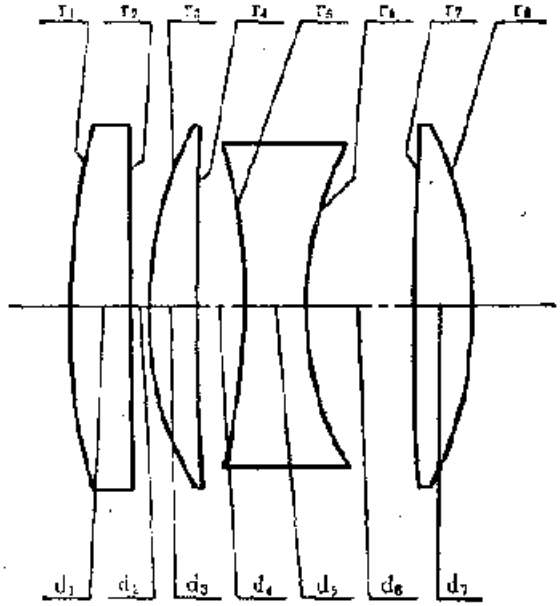


编号：01-00-086

四片式大孔径记录透镜系统

E. F. L＝100　　B. F. L＝　　FNo. ≈1.9　　F. A. ＝37.5°～43°～45°

$$\beta -\frac{7}{10}\sim\frac{9}{10}\sim 1.0^{\times}$$

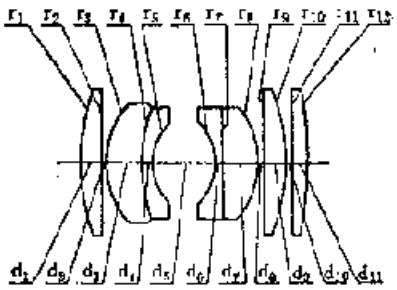


序号	r	d	n_D	ν_D
1	99.39	9.05	1.6170	55.1
2	659.95	2.65		
3	53.63	7.95	1.6110	57.2
4	∞	6.95		
5	−102.7	9.25	1.6725	32.2
6	49.7	16.17		
7	310.1	8.60	1.6110	57.2
8	−57.82			

编号：01-00-087

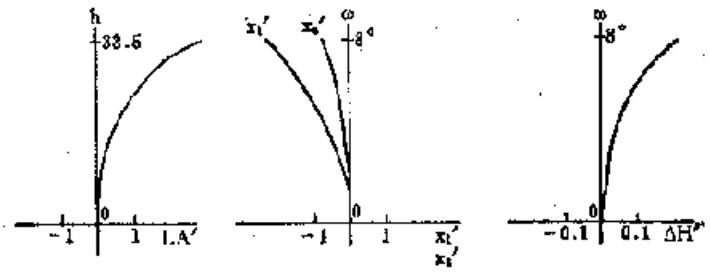
用于荧光影象的电子摄影复制的七片式镜头

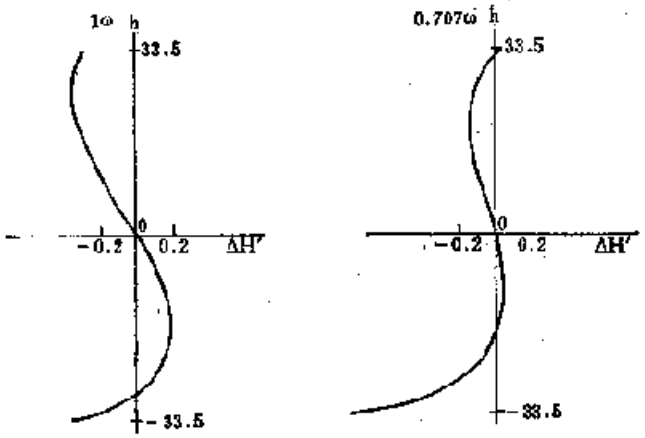
E. F. L＝134.04　B. F. L＝51.80　FNo.＝2.0　F. A.＝16°　λ＝4360 Å



序号	r	d	n_D	ν_D	序号	r	d	n_D	ν_D
1	33.0	12.15	1.62031	60.3	7	∞	19.8	1.62031	60.3
2	∞	3.0			8	−46.5	3.0		
3	46.5	19.8	1.62031	60.3	9	∞	12.15	1.62031	60.3
4	125.0	4.5	1.61992	36.3	10	−93.0	3.0		
5	30.686	34.0			11	∞	9.72	1.62031	60.3
6	−30.686	4.5	1.61992	36.3	12	−290.07			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	0.14	−0.048	−0.067	−0.023	0.10	18.95	1.14%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	2.91	0.21	−2.20	−0.79	−1.41	−0.31	0.10
70	0.93	0.073	−1.01	−0.38	−0.63	−0.36	−0.11

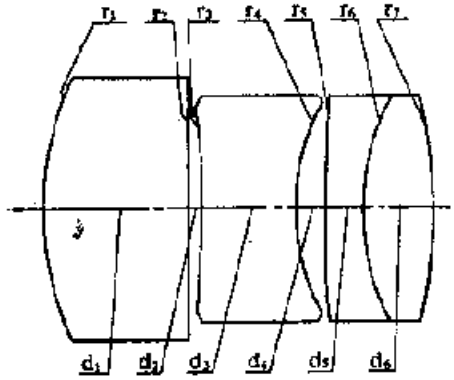




编号：01-00-088

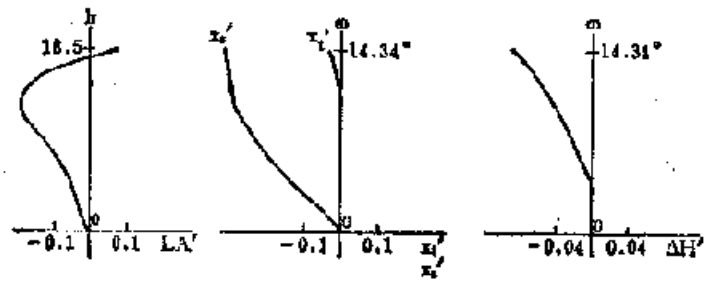
三组四片摄影物镜

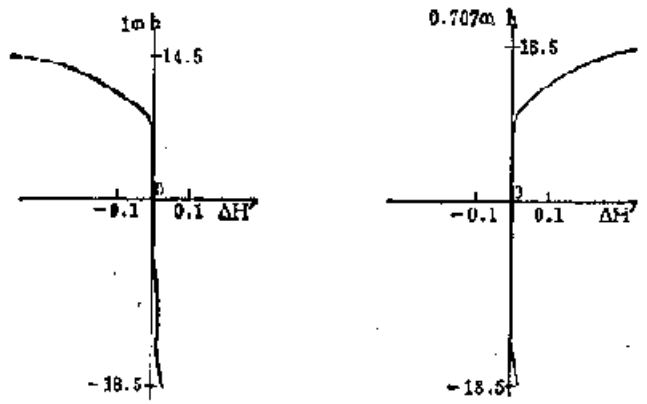
E. F. L＝100　B. F. L＝69.47　FNo.＝2.7　F. A.＝±14.34°　$Lp_1'=-17.4$



序号	r	d	n_D	ν_D	序号	r	d	n_D	ν_D
		17.4*							
1	49.3	22.1	1.75	52.4	5	150.0	5.7	1.53	51.6
2	1017.5	2.2			6	34.8	10.8	1.75	52.4
3	−121.1	14.6	1.69	31.1	7	−32.0			
4	34.9	4.2							

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1 m)
	−0.047	−0.020	0.011	−0.056	−0.019	26.34	−0.33%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.060	−0.088	−0.035	−0.33	0.30	−1.84	−0.093
70	−0.18	−0.020	−0.0027	−0.303	0.30	0.40	0.081

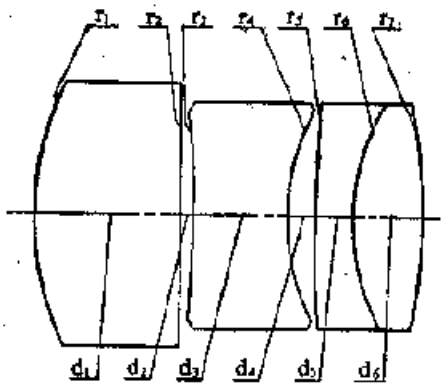




编号：01-00-089

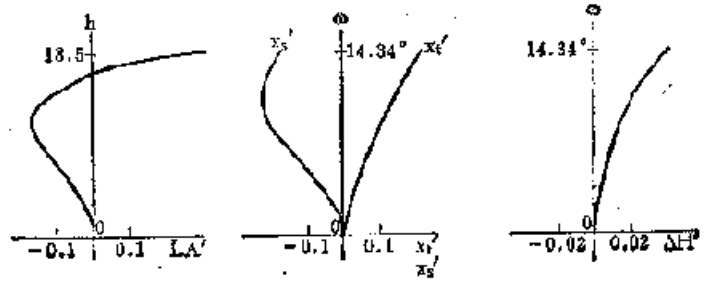
三组四片摄影物镜

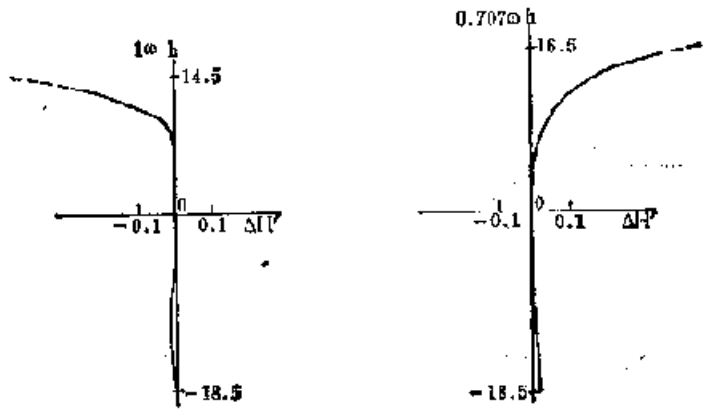
E. F. L＝100　B. F. L＝69.71　FNo. ＝2.7　F. A. ＝±14.34°　$L_{p'}$＝－18.8



序号	r	d	n_D	ν_D	序号	r	d	n_D	ν_D
		18.3*							
1	50.3	22.0	1.75	50.6	5	434.8	5.7	1.53	51.6
2	－284.2	1.7			6	84.6	13.9	1.75	50.6
3	－93.2	14.7	1.69	30.9	7	－74.1			
4	34.6	3.8							

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_6	HI	QP(1ω)
	－0.050	－0.015	0.015	－0.060	0.014	26.40	0.15%
h或ω%	LA′	ΔH′	x_t	x_s	x_t－x_s	K_T	$K_{T0.7}$
100	0.31	0.040	0.22	－0.18	0.41	－2.00	－0.14
70	－0.16	0.019	0.12	－0.22	0.35	0.39	0.081

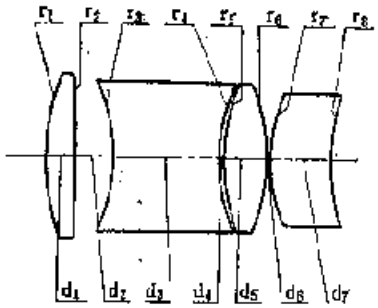




编号：01-00-090

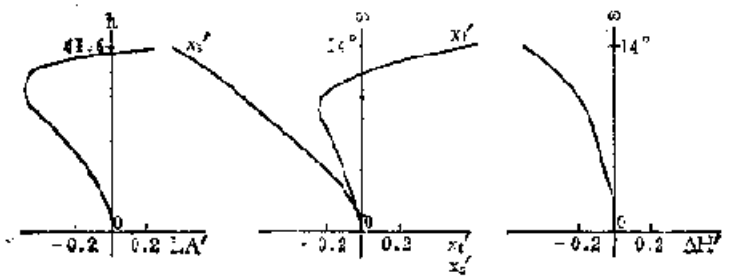
四组元大孔径镜头

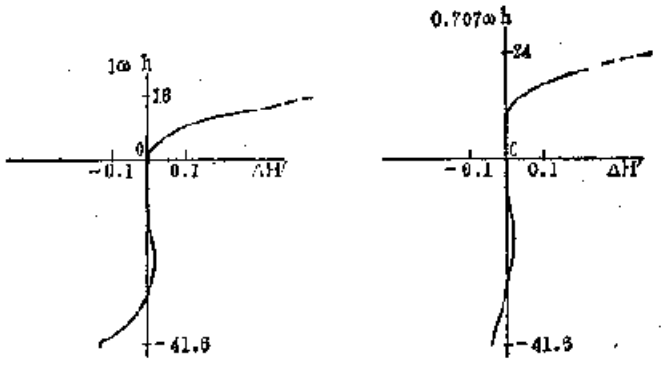
E. F. L＝100　B. F. L＝53.97　FNo. ＝1.2　F. A. ＝±14°　$Lp_1'=-14.29$



序号	r	d	n	ν	序号	r	d	n	ν
		14.29*							
1	131.52	16.43	1.753	50.6	5	116.97	24.29	1.753	50.6
2	−737.93	20.71			6	−96.043	1.43		
3	−96.043	60.00	1.720	29.3	7	86.129	34.29	1.6968	56.2
4	94.329	2.02			8	154.39			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	H	QP(1ω)
	−0.39	−0.28	0.030	−0.53	−0.50	24.98	−2.18%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	0.22	−0.54	0.62	−1.08	1.70	18.40	11.03
70	−0.46	−0.20	−0.24	−0.65	0.41	16.20	0.82

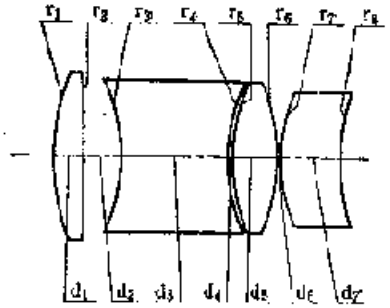




编号：01-00-091

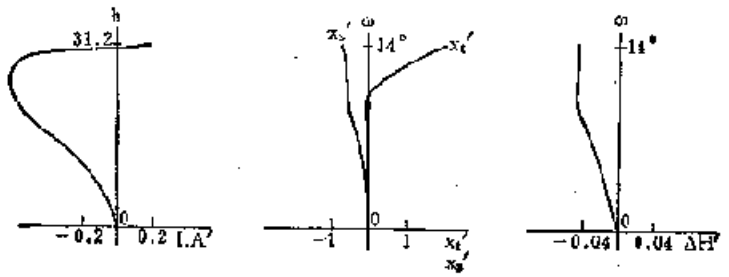
四组元大孔径镜头

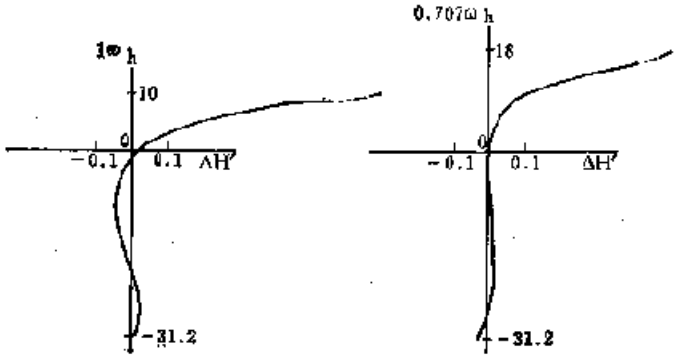
E. F. L＝100　　B. F. L＝53.37　　FNo. ＝1.6　　F. A. ＝±14°　　$Lp_1' = -14.28$



序号	r	d	n	ν	序号	r	d	n	ν
		14.29*							
1	84.843	16.14	1.617	54.9	5	502.27	18.00	1.617	54.9
2	−310.43	20.93			6	−50.200	1.43		
3	58.733	26.36	1.589	30.9	7	69.464	32.57	1.617	54.9
4	90.279	3.93			8	126.44			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.29	−0.20	−0.036	−0.29	−0.11	24.93	−0.18%
h或ω%	LA′	ΔH′	x_1'	x_2'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.16	−0.046	2.28	−0.75	3.04	10.31	3.34
70	−0.59	−0.047	0.088	−0.64	0.55	8.36	0.94

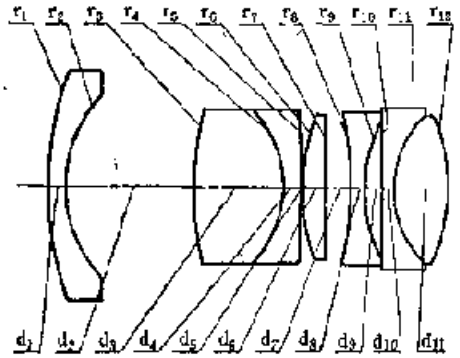




编号：01-00-092

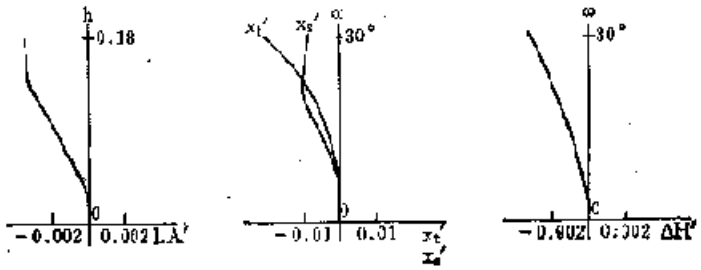
短焦距长后截距摄影镜头

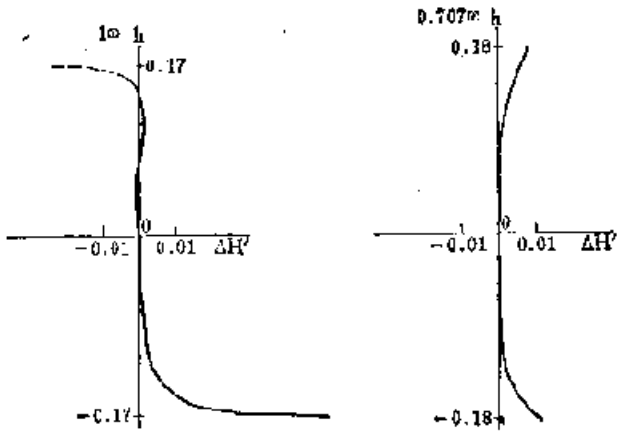
E. F. L＝1.0　　B. F. L＝1.0918　　FNo. ＝2.8　　F. A. ＝60°



序号	r	d	n_e	ν_e	序号	r	d	n_e	ν_e
1	1.115	0.064	1.4892	69.9	7	−17.428	0.095		
2	0.446	0.439			8	− 1.141	0.043	1.7040	34.0
3	1.489	0.303	1.6713	41.6	9	0.541	0.056		
4	− 0.368	0.053	1.6299	38.8	10	11.455	0.043	1.6734	46.9
5	− 3.293	0.003			11	0.358	0.180	1.6040	64.6
6	0.674	0.085	1.6241	60.1	12	− 0.575			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	− 0.00049	0.00044	0.00025	− 0.0017	− 0.0021	0.57	− 0.60%
h或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	− 0.0036	− 0.0034	− 0.020	− 0.0095	− 0.011	− 0.018	0.0022
70	− 0.0030	− 0.0013	− 0.0078	− 0.0098	0.0019	0.0098	0.00098

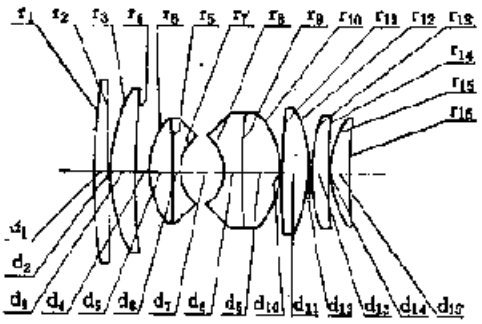




编号：01-00-093

大孔径摄影或电影摄影物镜

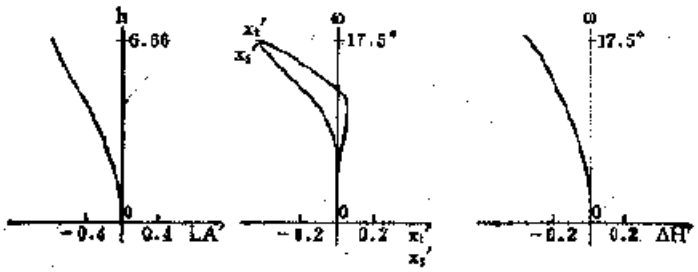
E. F. L＝100　　B. F. L＝68.42　　FNo. ＝0.75　　F. A. ＝35°

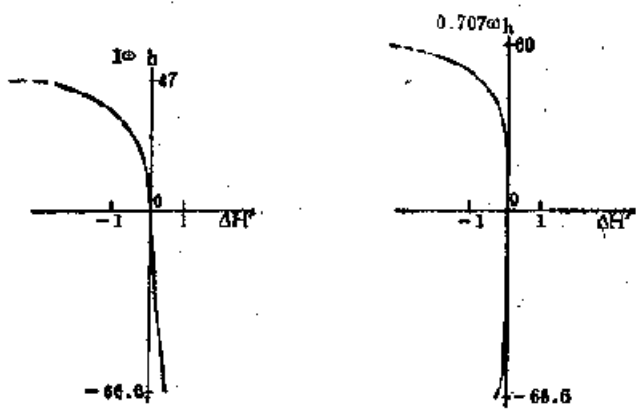


序号	r	d	n_d	ν_d	序号	r	d	n_d	ν_d
1	696.68	10.51	1.51973	51.9	9	414.82	42.45	1.73592	50.8
2	−2309.16	0.40			10	− 84.78	0.40		
3	185.20	28.10	1.51973	51.9	11	613.55	30.85	1.82287	60.1
4	836.41	13.76			12	−146.65	0.40		
5	87.02	28.49	1.68584	47.9	13	156.47	20.63	1.58990	68.0
6	− 675.06	7.46	1.62075	62.3	14	854.49	0.40		
7	46.14	50.90			15	99.01	22.60	1.58990	68.0
8	− 47.56	18.67	1.85504	23.5	16	302.96			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	− 0.66	− 0.030	0.30	− 0.56	− 0.86	31.47	−1.14%

h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	0.79	− 0.36	−0.44	− 0.45	0.013	22.42	−1.24
70	− 0.43	− 0.19	0.052	− 0.17	0.22	51.92	−0.29

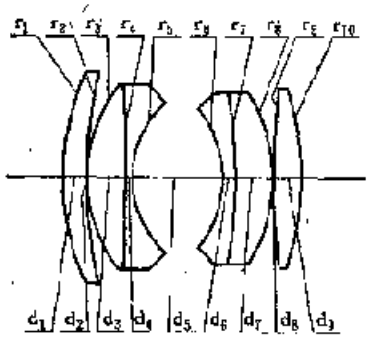




编号：01-00-094

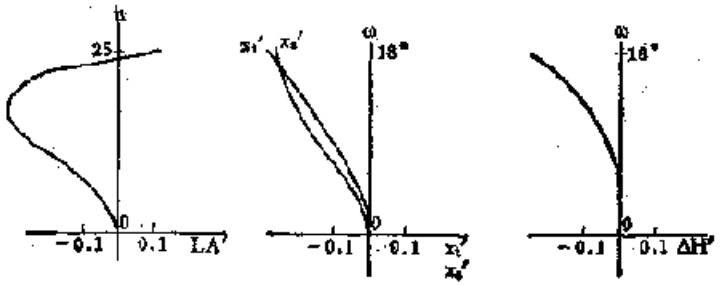
大孔径双高斯型摄影或电影摄影物镜

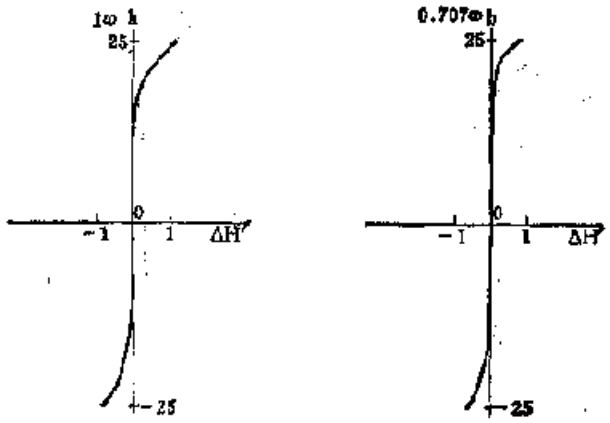
E. F. L＝100　　B. F. L＝71.9　　FNo. ＝2　　F. A. ＝36°



序号	r	d	n_e	v	序号	r	d	n_e	v
1	53.05	0.13	1.78666	43.62	6	− 30.88	3.83	1.81262	25.28
2	121.37	0.38			7	−134.40	10.35	1.78868	43.62
3	37.88	10.73	1.66081	55.31	8	− 41.25	0.38		
4	575.52	2.30	1.59910	39.58	9	954.04	7.28	1.78868	43.62
5	25.52	24.91			10	− 82.71			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.146	0.0093	0.010	−0.082	0.10	32.49	0.80%
h或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}$
100	0.11	−0.26	−0.28	−0.36	−0.026	0.21	0.046
70	−0.31	−0.084	−0.17	−0.21	0.043	0.10	0.039

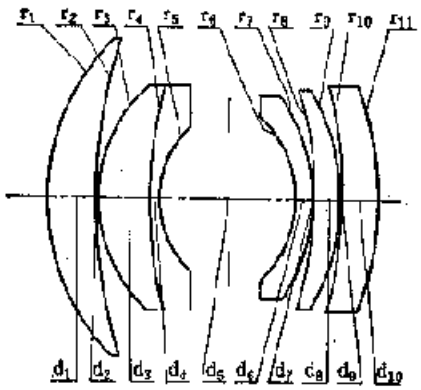




编号：01-00-095

五组元光学物镜

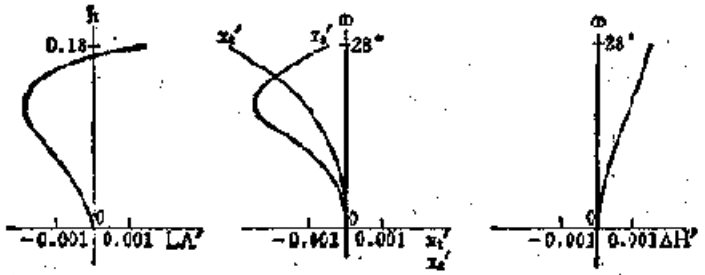
E. F. L＝1.000　　B. F. L＝0.5913　　FNo. ＝2.8　　F. A. ＝56°

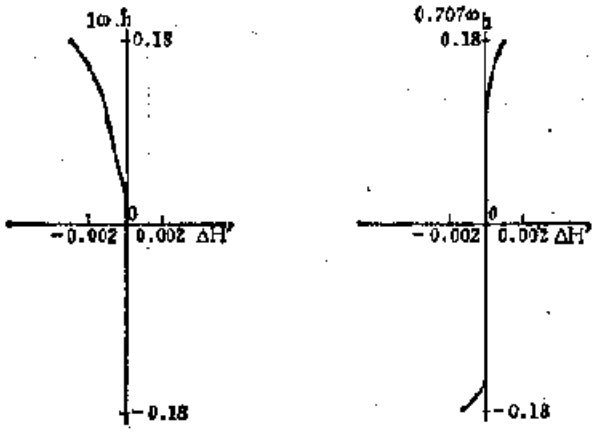


序号	1/r	d	n_d	ν_d	序号	1/r	d	n_d	ν_d
1	2.4269	0.0900	1.6204	60.3	7	−2.8784	0.0020		
2	1.0077	0.0020			8	−1.3964	0.0500	1.6204	60.3
3	3.5754	0.1000	1.6204	60.3	9	−2.6544	0.0020		
4	1.2056	0.0200	1.6254	35.8	10	−1.2150	0.0700	1.8028	46.8
5	5.4002	0.2500*			11	−2.5585			
6	−4.7922	0.0300	1.8052	25.4					

0.2500* = 0.1250 + 0.1250

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00053	0.00011	0.000078	−0.00076	0.0013	0.53	0.27%
h 或 ω%	LA′	ΔH′	x_1'	x_2'	$x_1'-x_2'$	K_{T1}	$K_{T0.7}$
100	0.0014	0.0014	−0.0032	−0.00050	−0.0027	−0.0012	−0.00070
70	−0.0019	0.00097	−0.0013	−0.0026	0.0012	−0.00047	−0.000017

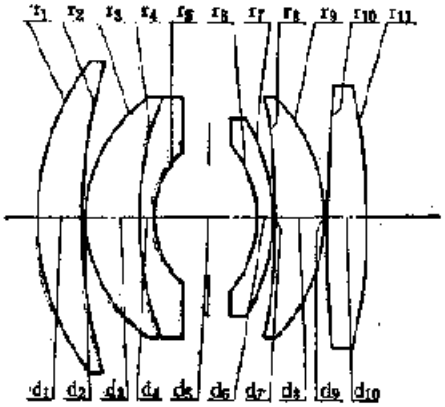




编号：01-00-096

五组元光学物镜

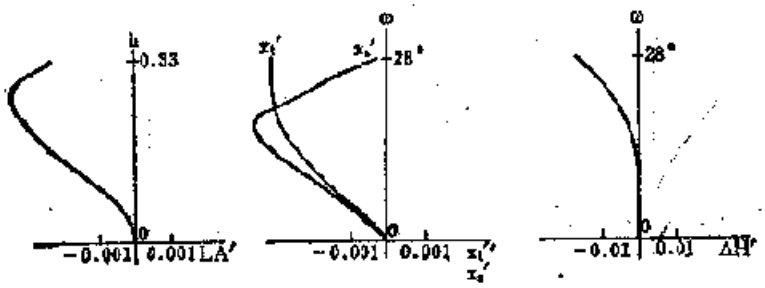
E. F. L＝1.000　　B. F. L＝0.4834　　FNo. ＝1.5　　F. A. ＝56°

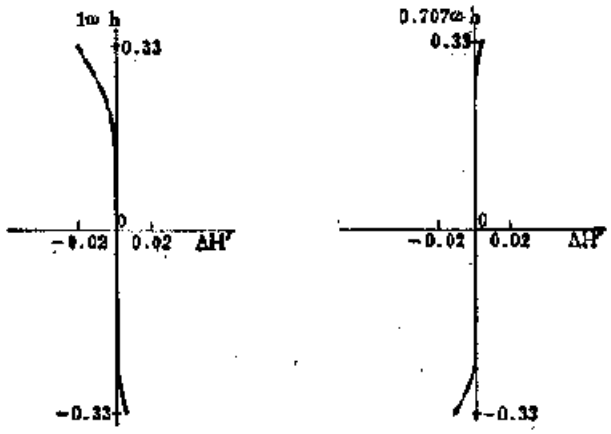


序号	1/r	d	n_d	ν_d	序号	1/r	d	n_d	ν_d
1	1.4870	0.1300	1.8028	46.8	7	−1.9483	0.0030		
2	0.6046	0.0030			8	−0.5537	0.1300	1.8028	46.8
3	2.5207	0.1500	1.8028	46.8	9	−2.2403	0.0030		
4	1.1372	0.0400	1.7847	25.8	10	0.2944	0.1100	1.8028	46.8
5	4.0977	0.2800*			11	−0.6141			
6	−3.4392	0.0400	1.9176	21.5					

0.2800* = 0.1400 + 0.1400

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.0025	0.00076	−0.00027	−0.0036	−0.0035	0.53	−3.31%
h 或 ω%	LA′	ΔH′	x_1'	x_2'	$x_1'-x_2'$	K_{T1}	$K_{T0.7}$
100	−0.0024	−0.017	−0.0033	−0.00027	−0.0031	−0.0081	−0.0036
70	−0.0034	−0.0046	−0.0032	−0.0036	0.00034	−0.0038	0.00025

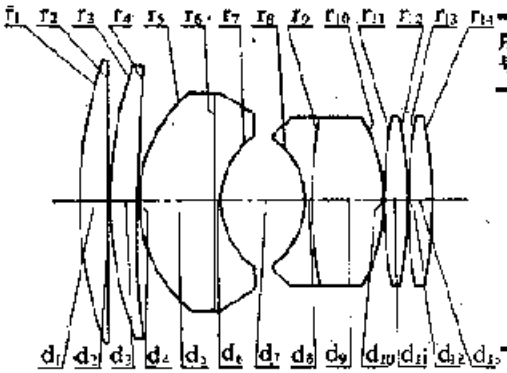




编号：01-00-097

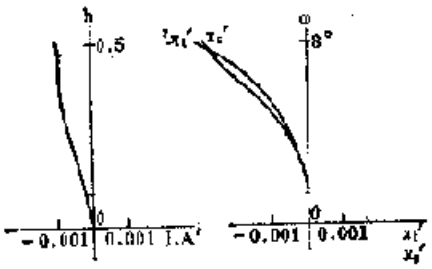
双高斯型物镜

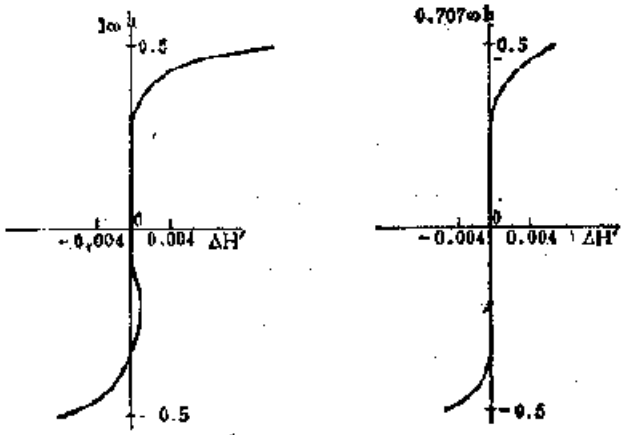
E. F. L＝1　　B. F. L＝0.8726　　FNo. ＝1.0　　F. A. ＝16°



序号	r	d	n_d	ν_d	序号	r	d	n_d	ν_d
1	1.4859	0.1002	1.6730	47.19	8	−0.3968	0.0281	1.3989	30.05
2	5.0270	0.0044			9	1.6898	0.2439	1.7131	53.89
3	1.2175	0.1045	1.6730	47.19	10	−0.6325	0.0044		
4	3.8055	0.0044			11	1.71111	0.0784	1.6910	54.89
5	0.4783	0.2570	1.7130	53.89	12	−1.7111	0.0044		
6	−12.489	0.0261	1.6989	30.05	13	1.7111	0.0784	1.6910	54.89
7	0.2696	0.2788			14	−1.7111			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	OP(1ω)
	0.0018	−0.000051	0.00015	−0.0016	0.00045	0.14	0.36%
h或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	−0.00099	0.00051	−0.0031	−0.0029	−0.00014	0.0026	0.00013
70	−0.00097	0.00018	−0.0013	−0.0014	0.00013	0.0013	0.00014

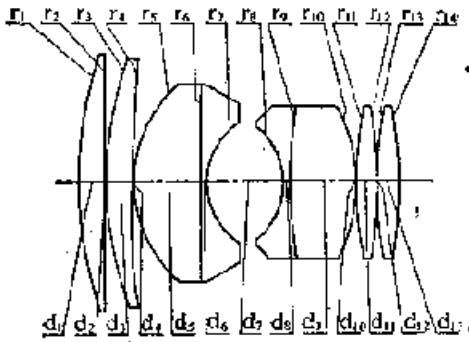




编号：01-00-098

双高斯型物镜

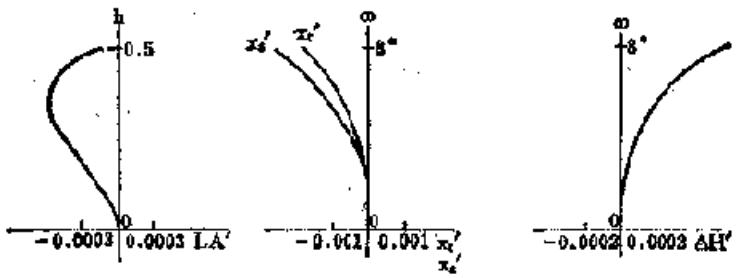
E. F. L＝1　　B. F. L＝0.3838　　FNo. ＝1.0　　F. A. ＝15°

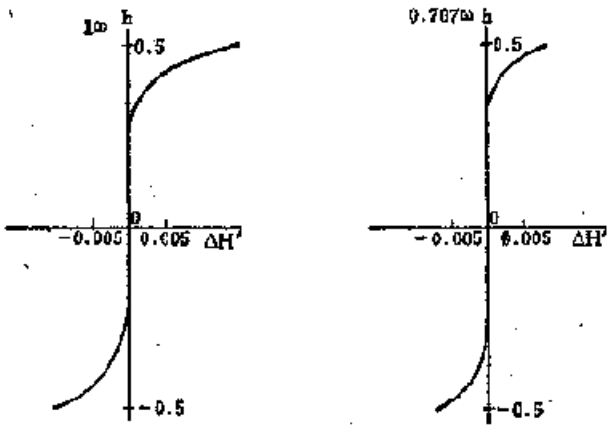


序号	r	d	n	ν	序号	r	d	n	ν
1	1.5252	0.1023	1.6700	47.19	8	−0.3800	0.0252	1.6989	30.05
2	5.1743	0.0016			9	1.7685	0.2594	1.0204	60.29
3	1.2093	0.1067	1.6700	47.19	10	−0.5199	0.0016		
4	3.9145	0.0016			11	1.4108	0.0788	1.6910	54.80
5	0.4876	0.2572	1.7170	47.90	12	−2.2930	0.0016		
6	−10.376	0.0274	1.6989	30.05	13	1.4108	0.0788	1.6910	54.80
7	0.2736	0.2851			14	−2.2930			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.0011	−0.00044	0.00038	−0.0016	0.00066	0.14	0.44%

h 或 ω%	LA′	ΔH′	x_t	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	−0.00015	0.30062	−0.0018	−0.0025	0.00067	0.0027	−0.00010
70	−0.00057	0.30021	−0.00071	−0.0012	0.00056	0.0010	−0.00011

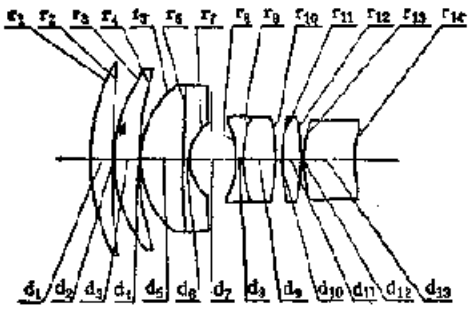




编号：01-00-099

改进的双高斯型物镜

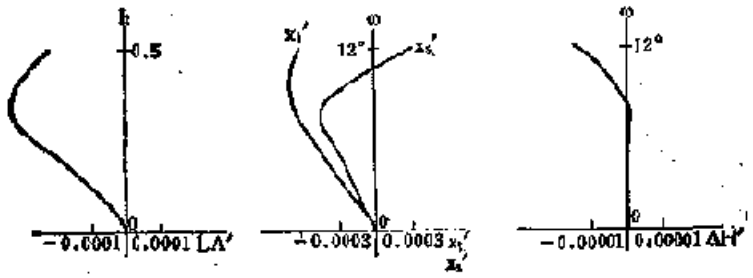
E. F. L＝1.000　　B. F. L＝0.1000　　FN$_{D.}$＝1.0　　F. A. ＝24°

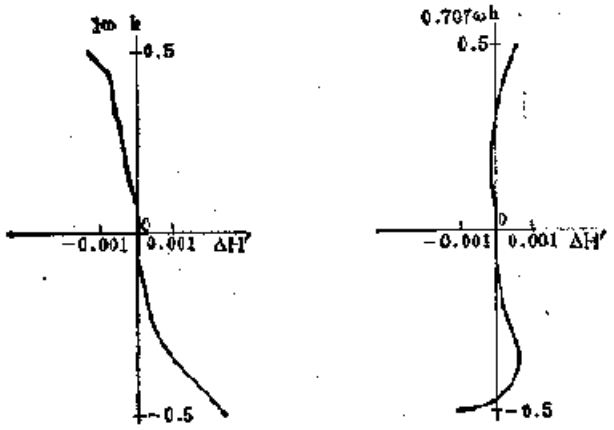


序号	r	d	n	v	序号	r	d	n	v
1	1.1798	0.1420	1.64304	60.10	8	−0.5081	0.0400	1.64062	35.34
2	4.6838	0.0050			9	0.4614	0.2000	1.7480	44.77
3	0.7940	0.1420	1.64304	60.10	10	−0.8200	0.0247		
4	1.7662	0.0050			11	1.5931	0.1039	1.80688	46.76
5	0.5517	0.2450	1.64304	60.10	12	−2.2594	0.0010		
6	4.4326	0.0400	1.70445	30.07	13	0.7443	0.2969	1.80688	46.76
7	0.2325	0.2454*			14	0.6942			

0.2454* = 0.1064 + 0.1399

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00072	0.00026	−0.000055	0.00096	0.00010	0.21	−0.0071%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	x_t' x_s'	K_{T1}'	$K_{T0.7}$
100	−0.00021	−0.000015	−0.00065	0.00031	−0.00097	0.00051	0.00025
70	−0.00032	0.00000066	−0.00069	−0.00045	−0.00024	−0.00020	0.00031

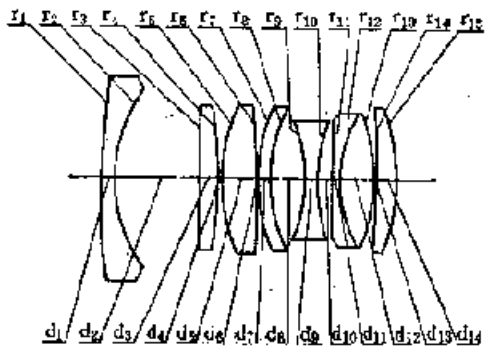




编号: 01-00-100

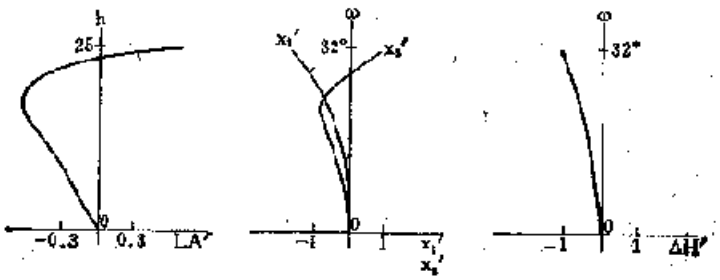
广　角　镜　头

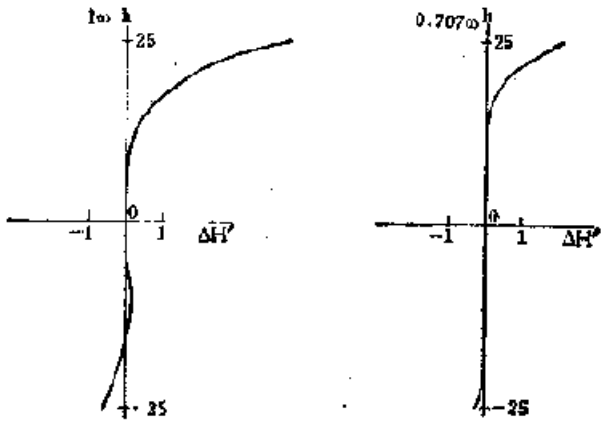
E. F. L＝100　　B. F. L＝103.96　　FNo. ＝2.0　　F. A. ＝±32°



序号	r	d	n_D	ν_D	序号	r	d	n_D	ν_D
1	460.000	7.00	1.58913	61.2	9	−91.500	6.50	1.74077	27.7
2	80.137	47.00			10	98.025	8.00		
3	−2300.000	10.00	1.76200	40.3	11	1000.000	4.00	1.8340037.2	
4	−292.234	2.00			12	71.000	19.00	1.7725249.6	
5	95.700	18.00	1.77252	49.6	13	−89.354	0.50		
6	−707.468	1.00			14	−600.000	10.00	1.77251	49.6
7	80.000	8.00	1.53172	48.9	15	−110.648			
8	84.488	18.00							

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.27	−0.067	0.046	−0.38	−0.81	82.48	−1.78%
h或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K'_{T0.7}$
100	0.67	−1.11	−1.65	0.90	−2.56	2.00	0.48
70	−0.64	−0.58	−0.76	−0.80	0.035	0.95	0.10

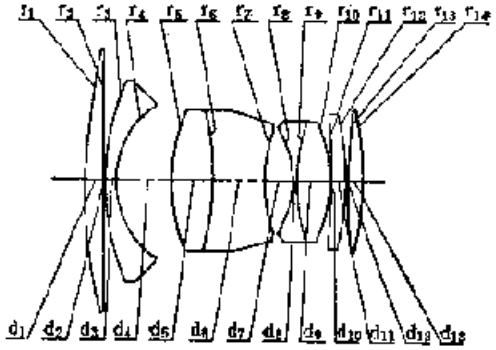




编号：01-00-101

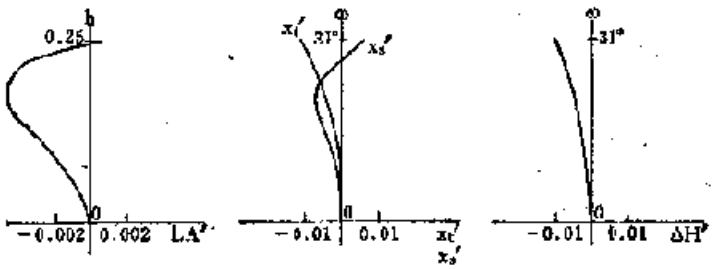
大孔径长工作截距摄影镜头

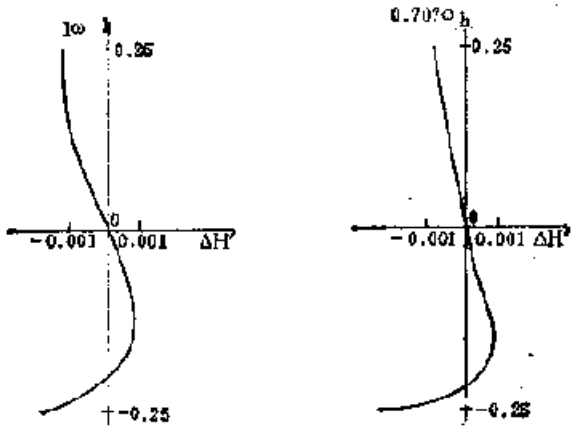
E. F. L＝1.0　　B. F. L＝1.1337　　FNo. ＝2　　F. A. ＝62°



序号	r	d	n_D	ν_d	序号	r	d	n_D	ν_d
1	3.2117	0.10833	1.71300	53.9	8	−0.5992	0.02778	1.78470	26.1
2	∞	0.00278			9	1.0775	0.19444	1.74443	49.4
3	1.3889	0.06111	1.51680	64.2	10	−0.7172	0.00278		
4	0.4778	0.31111			11	−3.0556	0.08333	1.76684	46.2
5	0.8945	0.22778	1.66755	41.9	12	−1.0691	0.00278		
6	−1.5278	0.29167	1.51454	54.62	13	3.6111	0.08944	1.74400	44.9
7	0.9444	0.14722			14	−2.1958			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.0019	0.0010	0.00034	−0.0035	0.0071	0.60	−1.79%
h或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	0.00058	−0.011	−0.011	0.0048	−0.015	−0.0016	−0.00032
70	−0.0045	−0.0055	−0.0042	−0.0071	0.0029	−0.0017	0.00017

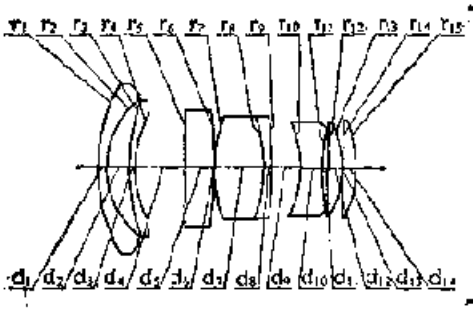




编号: 01-00-102

反远距型广角物镜

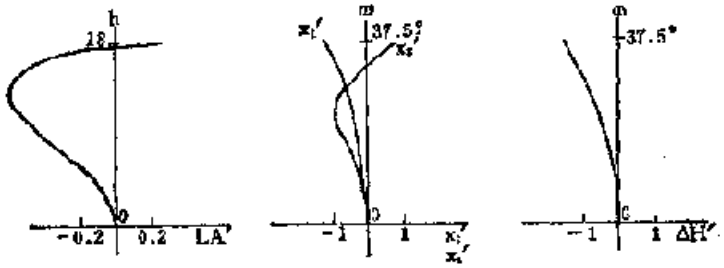
E. F. L=100　　B. F. L=131.4　　FNo. =2.8　　F. A. =75°

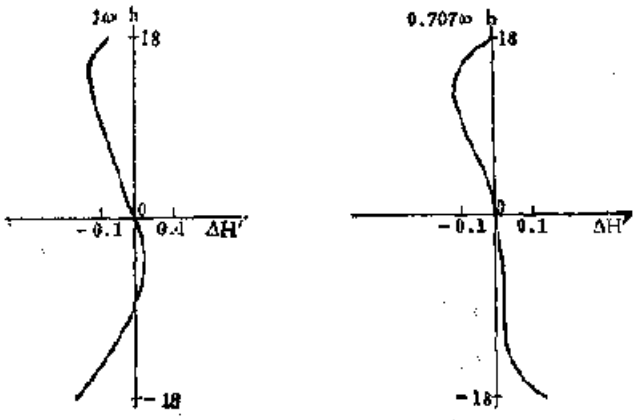


序号	r	d	n	v	序号	r	d	n	v
1	700.52	5.59	1.64250	58.1	9	-301.4	17.66		
2	54.0	13.29			10	-64.0	14.0	1.75520	27.5
3	128.85	3.85	1.62041	60.3	11	176.57	3.5		
4	70.25	31.47			12	-500.0	7.7	1.69680	55.6
5	393.4	17.48	1.60342	37.8	13	-61.1	0.35		
6	-625.0	0.35			14	-1468.5	6.29	1.63854	55.5
7	97.17	30.0	1.71700	47.9	15	-100.8			
8	-80.42	4.55	1.50137	56.5					

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	-0.13	-0.0049	0.020	-0.17	-0.65	76.63	-1.95%

h或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T_1}	$K_{T_{0.7}}$
100	0.27	-1.49	-1.15	0.62	-1.77	-0.11	-0.092
70	-0.61	-0.73	-0.63	-0.81	0.17	0.062	-0.045

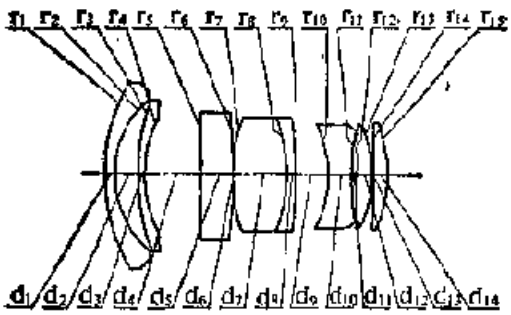




编号：01-00-103

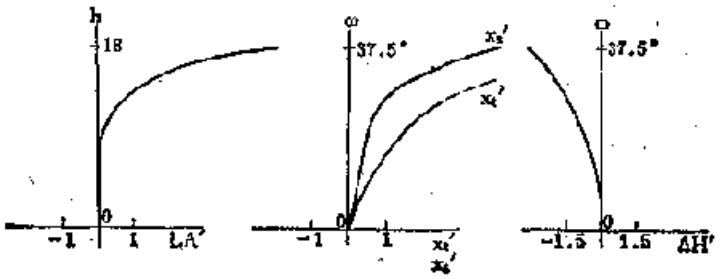
反远距型广角物镜

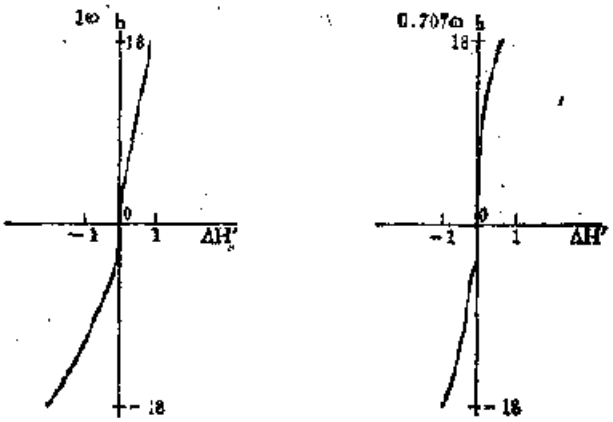
E. F. L＝100　　B. F. L＝130.5　　FNo. ＝2.8　　F. A. ＝75°



序号	r	d	n	ν	序号	r	d	n	ν
1	103.15	5.99	1.65160	58.5	9	−302.45	17.58		
2	54.72	13.29			10	−63.29	14.0	1.72825	28.3
3	129.37	3.85	1.62230	53.1	11	176.6	3.5		
4	60.73	31.47			12	−234.26	7.0	1.71300	53.9
5	979.0	17.48	1.67270	32.3	13	−62.94	0.35		
6	−700.0	0.35			14	−1073.4	6.29	1.65160	58.5
7	97.2	31.12	1.72000	50.3	15	−93.7			
8	−50.4	4.55	1.50137	56.5					

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.017	−0.028	0.062	−0.041	−0.87	78.32	−3.86%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	4.94	−3.03	8.70	4.30	4.40	−0.48	−0.27
70	0.73	−1.11	2.53	0.90	1.63	−0.093	−0.12

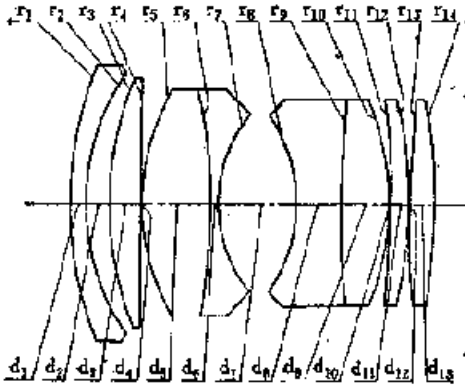




编号：01-00-104

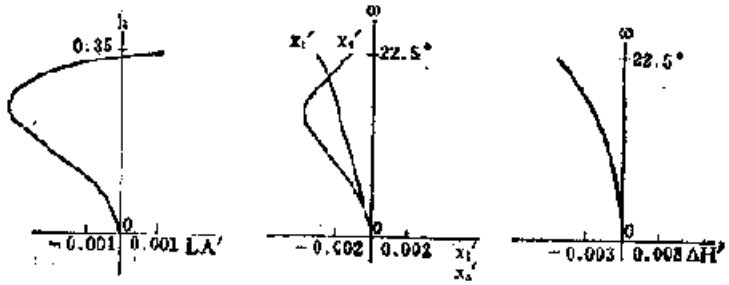
大孔径摄影或电影摄影物镜

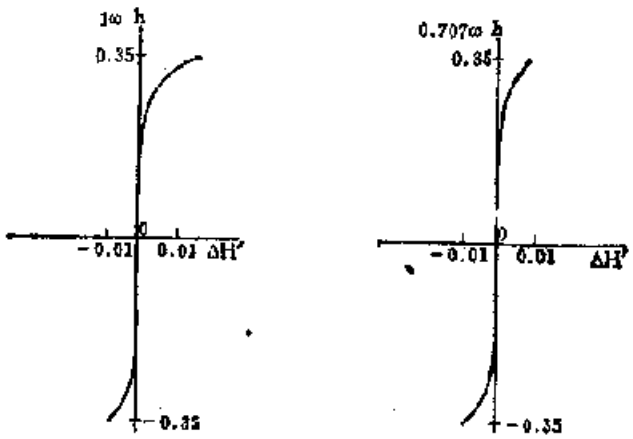
E. F. L＝1　　B. F. L＝0.7264　　FNo. ＝1.4　　F. A. ＝45°



序号	r	d	n_D	ν_d	序号	r	d	n_D	ν_d
1	0.9812	0.0479	1.56732	42.8	8	−0.4496	0.1245	1.80518	25.4
2	0.6237	0.0671			9	2.4979	0.1342	1.78443	43.9
3	0.9057	0.0852	1.78443	43.9	10	−0.7077	0.0019		
4	5.4044	0.0019			11	−3.2532	0.0575	1.78443	43.9
5	0.5551	0.1916	1.78179	37.1	12	−1.1153	0.0019		
6	−1.5370	0.0287	1.68893	31.2	13	3.5320	0.0671	1.78443	43.9
7	0.3789	0.2108			14	−1.6338			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.0028	0.00043	0.00069	−0.0037	−0.0040	0.41	−1.34%
h 或 ω%	LA′	ΔH′	x_t	x_s'	$x_t - x_s'$	K_{T1}	$K_{T0.7}$
100	0.0010	−0.0057	−0.0032	−0.0013	−0.0019	0.0038	0.00083
70	−0.0032	−0.0022	−0.0021	−0.0039	0.0018	−0.00029	0.00038

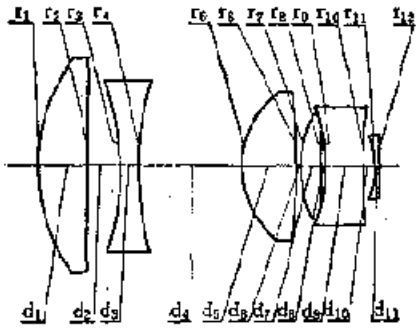




编号：01-00-105

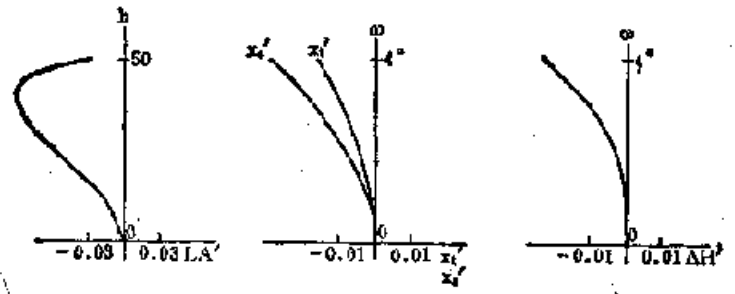
六片式珀蓋伐型放映镜头

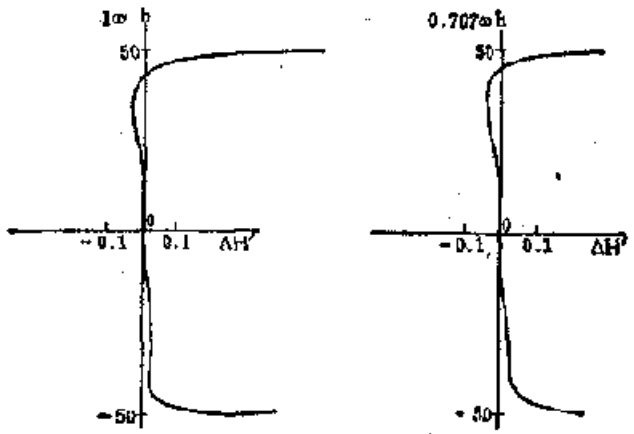
E. F. L＝100　　B. F. L－12.86　　FNo. ＝1.0　　F. A. ＝8°



序号	r	d	n_D	ν_D	序号	r	d	n_D	ν_D
1	107.3	27.6	1.713	53.9	7	83.48	10.7	1.713	53.9
2	－870.3	17.1			8	－2845	1.99		
3	－134.3	11.4	1.728	28.3	9	－151.9	22.5	1.755	27.5
4	232.0	56.8			10	321.0	4.95		
5	51.24	30.0	1.516	64.0	11	－59.70	3.18	1.755	27.5
6	－325.1	2.27			12	∞			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	－0.16	0.0033	0.0034	－0.018	－0.021	7.00	－0.31%
h或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	－0.033	－0.022	－0.016	－0.029	0.013	0.43	－0.013
70	－0.086	－0.0078	－0.0093	－0.015	0.0068	0.25	－0.011

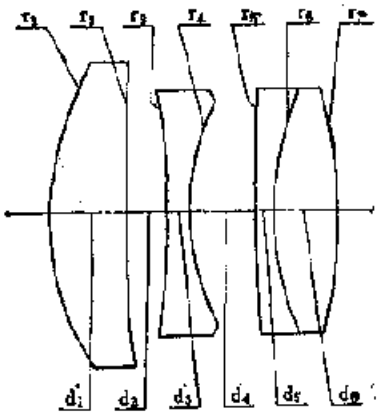




编号：01-00-106

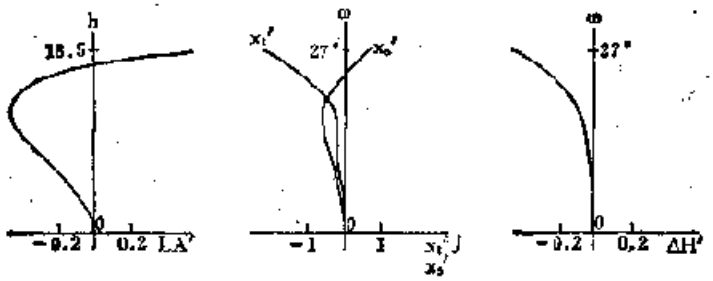
三组四片摄影物镜

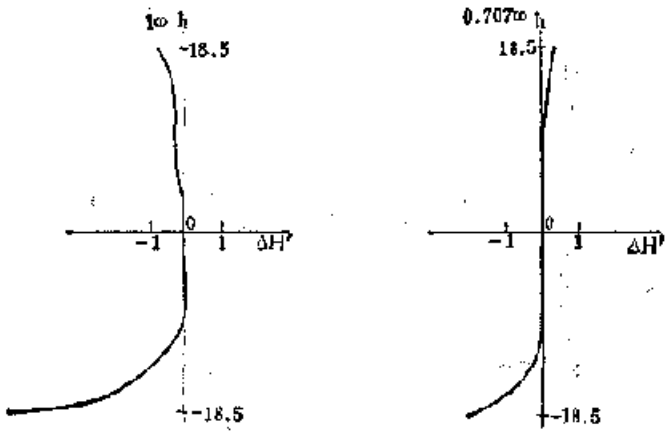
E. F. L＝100　　B. F. L＝79.77　　FNo. ＝2.7　　F. A. ＝±27°



序号	r	d	n	v	序号	r	d	n	v
1	39.0	10.7	1.73	51.0	5	432.7	2.9	1.62	36.6
2	494.6	5.8			6	42.9	8.7	1.74	44.9
3	−98.6	3.4	1.67	32.2	7	−63.4			
4	34.5	8.9							

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.12	0.055	0.032	−0.20	−0.012	52.01	−0.91%
h 或 ω %	LA′	ΔH′	x_1'	x_2'	$x_1'-x_2'$	K_{T1}	$K_{\omega 0.7}$
100	0.54	−0.47	−2.10	0.60	−2.71	−2.03	−0.47
70	−0.47	−0.091	−0.27	−0.65	0.37	−0.87	−0.071

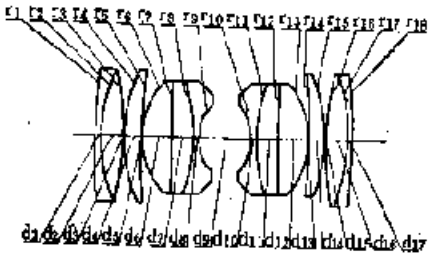




编号：01-00-107

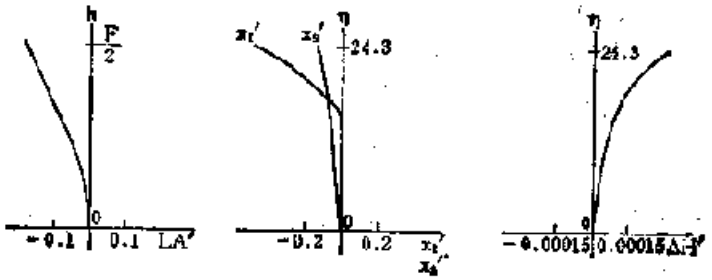
1:1 对称换向镜头

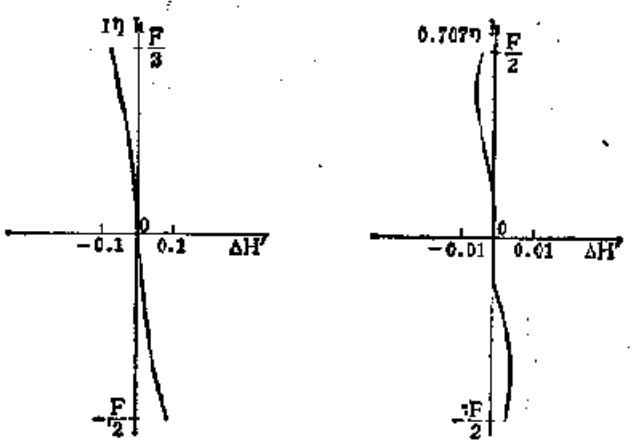
E. F. L＝100　B. F. L＝75.638　FNo. ＝ 2　F. A. ＝　β＝1ˣ　λ＝436～656mμ



序号	r	d	n	ν	序号	r	d	n	ν
1	285.84	1.6	1.62004	36.3	10	－17.93	1.71	1.62004	36.3
2	71.95	8.0	1.62041	60.3	11	59.04	8.91	1.64831	33.8
3	－116.25	0.12			12	1027.80	10.85	1.62041	60.3
4	62.24	6.05	1.62041	60.3	13	－31.58	0.12		
5	544.73	0.12			14	－544.73	6.05	1.62041	60.3
6	31.58	10.85	1.62041	60.3	15	－62.24	0.12		
7	－1027.80	8.91	1.64831	33.8	16	116.26	8.0	1.62041	60.3
8	－59.04	1.71	1.62004	36.3	17	－71.95	1.6	1.62004	36.3
9	17.93	19.53			18	－285.84			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	－0.0088	－0.0010	0.0094	－0.018	0.0011	－24.30	－0.0013%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	－0.19	0.00033	－0.49	0.15	－0.34	－0.0028	－0.0011
70	－0.12	0.00010	－0.025	－0.11	0.084	0.00037	－0.000086

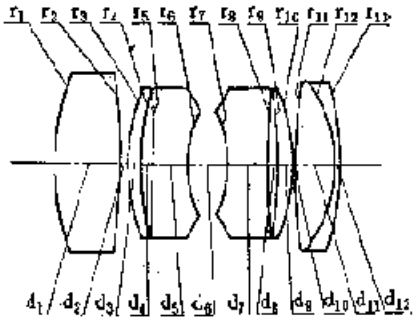




编号：01-00-108

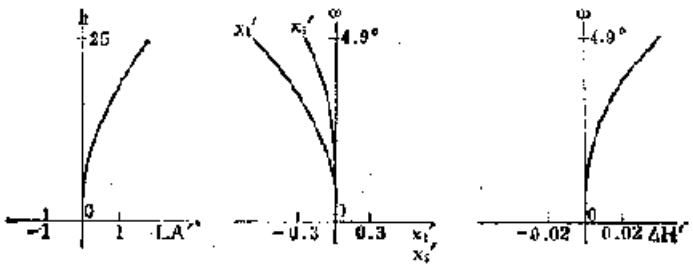
具有双分离负双透镜的高斯型摄影物镜

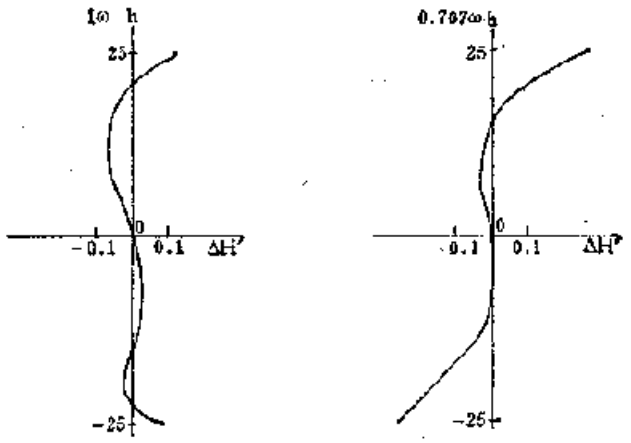
E. F. L＝100　　B. F. L＝49.54　　FNo. ＝2　　F. A. ＝±4.9°



序号	r	d	n_D	ν_D	序号	r	d	n_E	ν_D
1	66.300	17.42	1.75510	47.2	8	242.60	2.18		
2	−192.96	2.23			9	−133.01	4.63	1.69680	56.2
3	46.049	4.70	1.65820	57.2	10	−50.695	0.51		
4	108.97	2.36			11	138.25	10.95	1.68235	48.2
5	−352.51	10.08	1.69873	30.1	12	−37.751	1.41	1.62032	60.3
6	33.510	10.92			13	−73.381			
7	−33.285	12.15	1.61633	31.0					

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	0.22	−0.036	−0.023	−0.0048	0.020	8.61	0.49%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	1.83	0.042	−0.66	0.23	−0.42	0.096	−0.066
70	0.93	0.014	−0.31	−0.11	−0.20	0.0075	−0.042

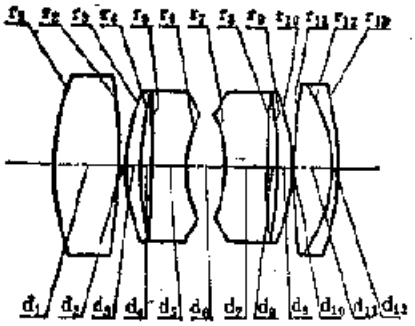




编号：01-00-109

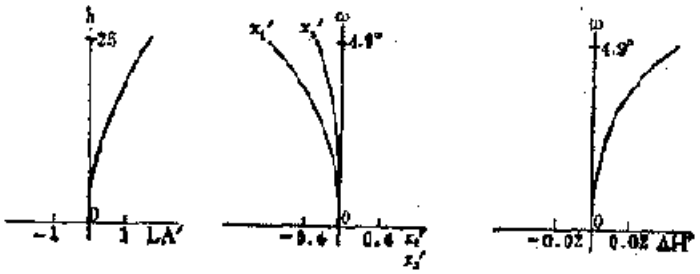
具有双分离负双透镜的高斯型摄影物镜

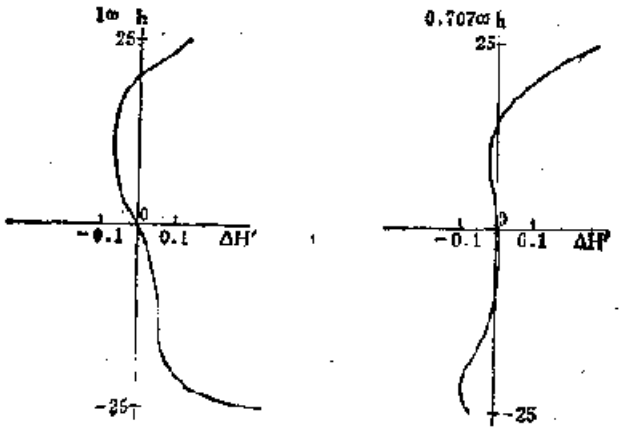
E. F. L＝100　　B. F. L＝46.92　　FNo. ＝ 2　　F. A. ＝ ±4.9°



序号	r	d	n	v	序号	r	d	n	v
1	65.1067	12.84	1.71299	53.8	8	308.59	7.67		
2	−146.65	0.14			9	−139.36	4.76	1.69680	56.2
3	49.156	5.12	1.71299	53.8	10	−61.245	1.74		
4	153.739	2.17			11	203.18	11.00	1.71299	53.8
5	−250.53	10.72	1.67250	32.0	12	−35.489	1.98	1.63918	45.2
6	32.111	11.34			13	−111.72			
7	−37.637	8.55	1.61700	36.6					

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	0.21	−0.031	−0.030	−0.0038	0.021	8.62	0.52%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	1.57	0.045	−0.81	−0.27	−0.53	0.23	0.011
70	0.85	0.015	−0.39	−0.13	−0.25	0.10	−0.0087

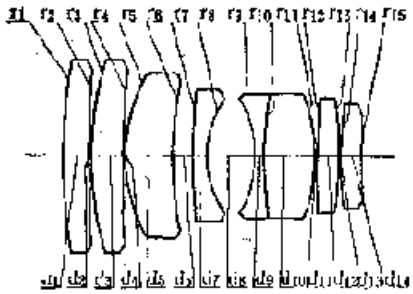




编号：01-00-110

高分辨率透镜系统

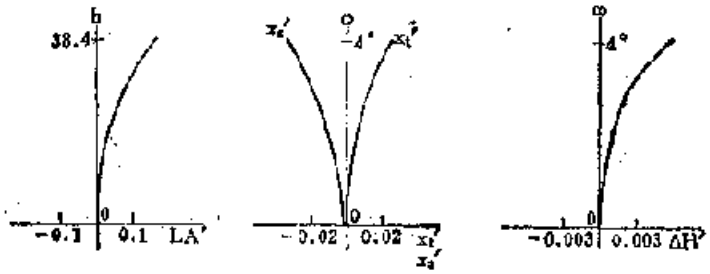
E. F. L＝100　　B. F. L＝45.94　　FNo. ＝1.8　　F. A. ＝±4°

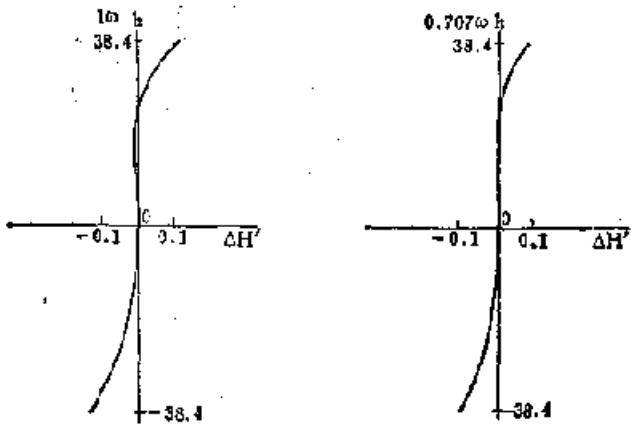


序号	r	d	n_e	ν_e	序号	r	d	n_e	ν_e
1	155.0	10.20	1.77252	49.6	9	−41.5	4.00	1.57046	42.8
2	449.3	0.24			10	143.0	18.00	1.79025	50.1
3	123.0	12.00	1.73232	54.8	11	−69.8	0.20		
4	413.3	0.24			12	375.8	8.00	1.79025	50.1
5	57.0	17.70	1.67280	57.3	13	−153.3	0.20		
6	114.5	7.17			14	167.7	8.00	1.77752	50.6
7	220.4	5.40	1.81262	25.5	15	−2058.7			
8	36.8	18.00							

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	0.018	−0.018	0.0086	−0.019	0.0042	6.99	0.081%

h或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.15	0.0057	0.023	−0.034	0.056	−0.0080	−0.023
70	0.061	0.0019	0.011	−0.018	0.029	−0.0038	−0.016

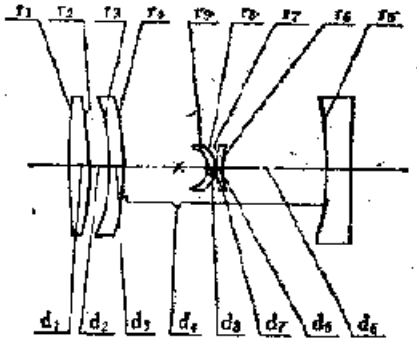




编号：01-00-111

大孔径折反射物镜

E. F. L＝140　　B. F. L＝－12　　FNo. ＝0.95　　F. A. ＝5°



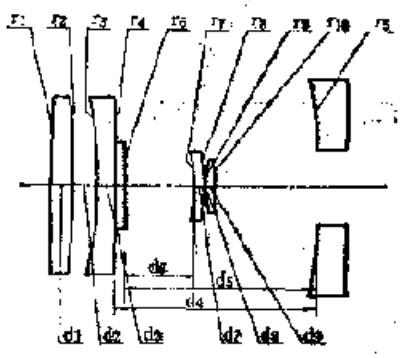
序　号	r	d	n	ν
1	1710.0	19.0	1.51872	64.17
2	－455.5	21.6		
3	－178.4	10.5	1.51872	64.17
4	－376.7	224.2		
5	－376.7*	－118.6		
6	145.6	－6.2		
7	147.5	－1.6	1.51872	64.17
8	－30.3	－6.2		
9	－25.5		1.51872	64.17

\+　表示反射面。

编号：01-00-112

大孔径折反射物镜

E. F. L＝414　　B. F. L＝40　　FNo. ＝1.2　　F. A. ＝5.8°



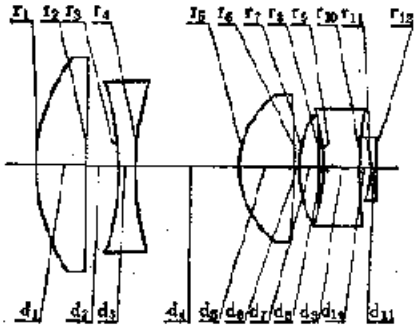
序　号	r	d	n	ν
1	2221.8	34	1.51672	64.71
2	－1313.0	35		
3	－609.9	25	1.51872	64.71
4	－2175.0	301		
5	－921.5*	－291		
6	∞+	103		
7	－170.6	12	1.72311	29.51
8	－276.4	3		
9	176.8	12	1.51872	64.17
10	－254.0			

\+　表示反射面。

编号：01-00-113

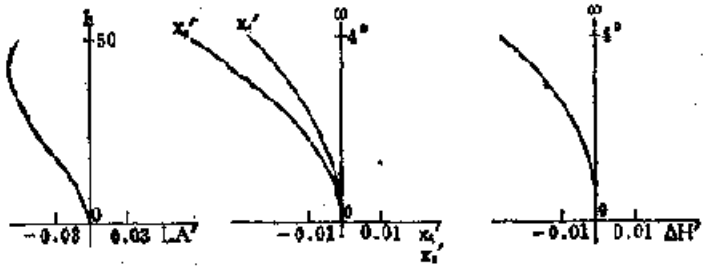
六片式珀兹伐型放映镜头

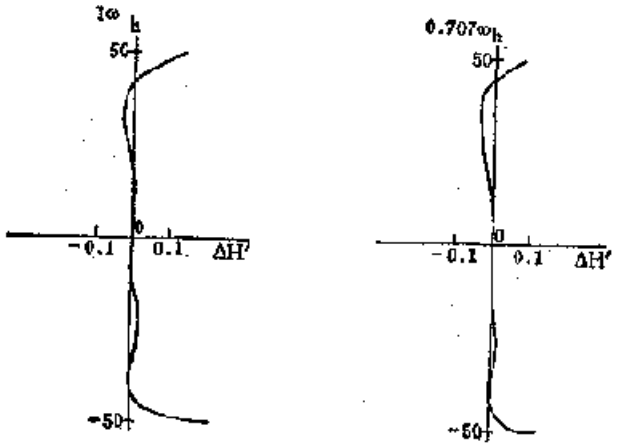
E. F. L＝100　　B. F. L＝13.45　　FNo. ＝1.0　　F. A. ＝8°



序号	r	d	n_D	ν_D	序号	r	d	n_D	ν_D
1	107.3	27.6	1.713	53.9	7	63.48	10.7	1.713	53.9
2	870.3	17.1			8	−2645	1.99		
3	−154.3	11.4	1.728	28.3	9	−151.9	22.5	1.755	27.5
4	232.0	56.8			10	321.0	4.95		
5	51.24	30.0	1.516	64.0	11	−60.70	3.18	1.755	27.5
6	−325.1	2.27			12	∞			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.11	0.0029	0.0044	−0.026	−0.025	3.99	−0.37%
h或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	−0.060	−0.026	−0.025	−0.043	0.017	0.16	−0.012
70	−0.060	−0.0091	−0.013	−0.021	0.0087	0.09	−0.011

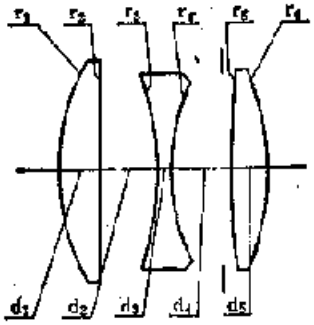




编号, 01-00-114

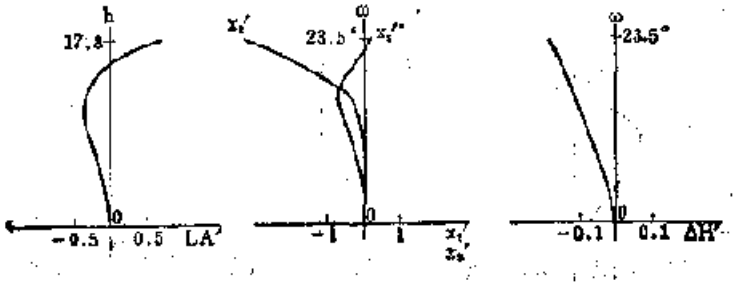
摄　影　物　镜

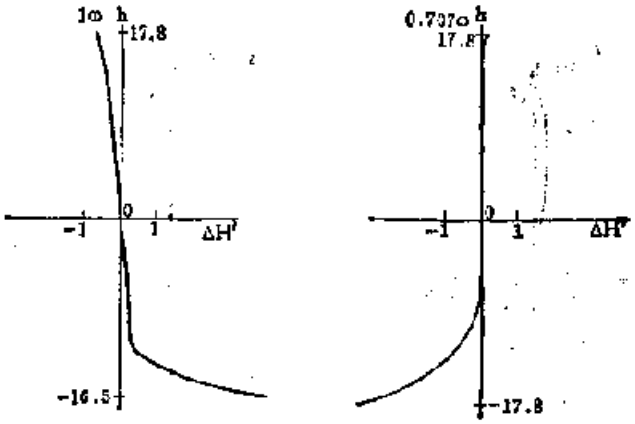
E. F. L＝100　　B. F. L＝　　FNo. ＝2.8　　F. A. ＝47°　　Lp'_4＝10●



序号	r	d	n_d	ν	序号	r	d	n_d	ν
1	42.81	7.476	1.65844	50.84	4	41.27	11.265		
2	−7013.04	10.241			5	167.23	6.798	1.6910	54.80
3	−60.91	2.969	1.67270	32.23	6	−47.56			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.1	0.068	0.028	−0.2	−0.07	46.4	−0.4%
h 或 ω%	LA′	ΔH′	x'_t	x'_s	$x'_t-x'_s$	K'_{T1}	$K'_{T0.7}$
100	0.69	−0.18	−3.3	0.002	3.3	6.04	−0.11
70	0.38	−0.125	−0.3	−0.87	0.57	−1.9	−0.26



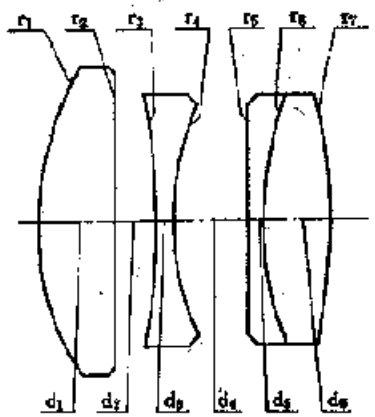


● 此系参考数据。

编号: 01-00-115

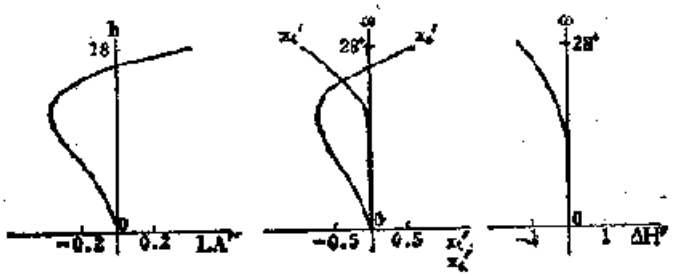
摄　影　物　镜

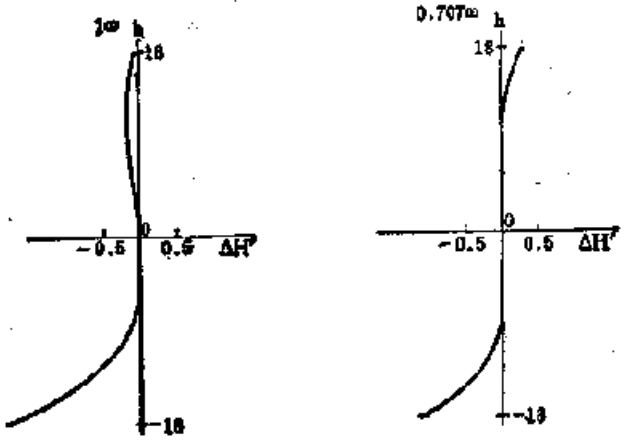
E. F. L＝100　　B. F. L＝　　FNo. ＝2.8　　F. A. ＝56°



序号	r	d	n_d	ν	序号	r	d	n_d	ν
1	39.268	10.32	1.7130	53.89	5	268.753	2.39	1.6261	39.10
2	283.685	5.69			6	50.234	9.49	1.7550	53.28
3	−99.940	2.53	1.6256	36.75	7	−69.533			
4	35.715	9.63							

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.09	0.0079	0.04	−0.22	−0.2	53	2.7%
h或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{Tt.7}$
100	0.42	−1.4	−0.80	0.6	−1.5	−1.6	−0.4
70	−0.86	−0.34	−0.15	−0.75	0.59	−0.4	−0.07

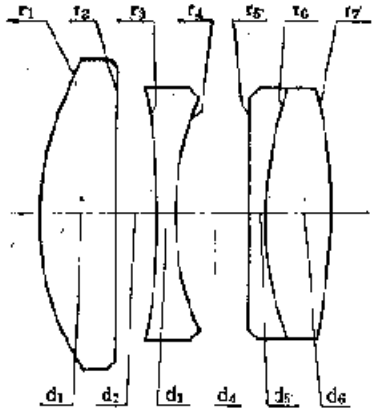




编号: 01-00-116

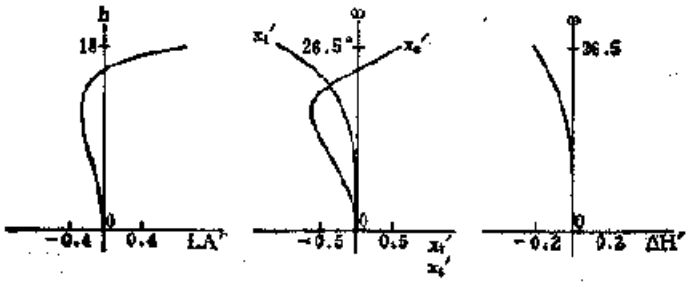
摄　影　物　镜

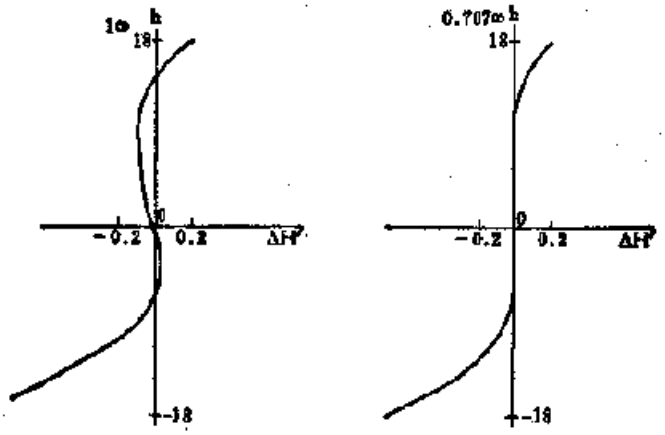
E. F. L＝100　　B. F. L＝　　FNo. ＝2.8　　F. A. ＝53°



序号	r	d	n_d	ν	序号	r	d	n_d	ν
1	42.348	8.48	1.7335	51.04	5	∞	2.55	1.6204	37.97
2	889.654	7.25			6	53.647	7.61	1.7440	44.90
3	−72.448	1.97	1.6547	32.87	7	−52.794			
4	39.706	8.95							

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	OP(1ω)
	−0.10	0.02	0.03	−0.19	−0.03	50	−0.45%
h 或 ω%	LA′	ΔH′	x_c'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	0.80	−0.2	−1.1	0.57	−1.8	−0.9	−0.24
70	−0.36	−0.06	−0.19	−0.68	0.439	−0.4	−0.07

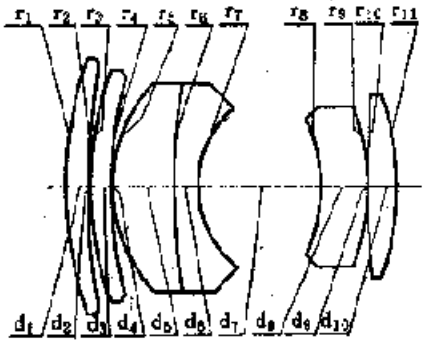




编号：01-00-117

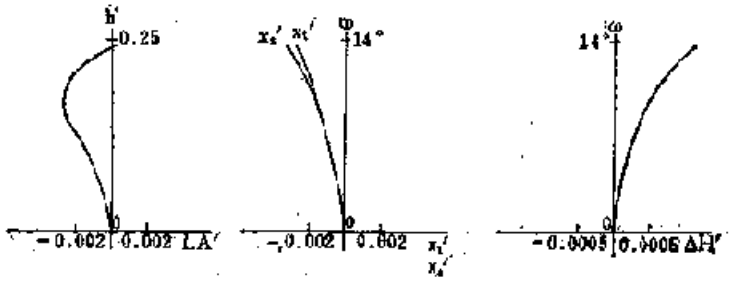
六片式改型高斯摄影物镜

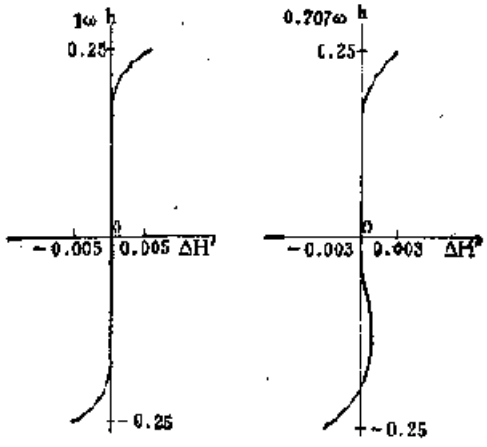
E. F. L=1.0　　B. F. L=0.5345　　FNo. = 2　　F. A. = ±14°



序号	r	d	n_d	ν_d	序号	r	d	n_d	ν_d
1	0.55202	0.05208	1.69100	54.80	7	0.21352	0.23553		
2	0.95375	0.00056			8	−0.30375	0.08936	1.72825	28.34
3	0.57639	0.04616	1.69100	54.80	9	−0.47801	0.00059		
4	0.80828	0.00059			10	10.70056	0.06155	1.69100	54.80
5	0.34086	0.10770	1.69100	54.80	11	−0.52482			
6	1.90296	0.03847	1.66680	33.09					

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	ΣH	QP(1ω)
	−0.0012	−0.00014	−0.000016	0.00053	0.00072	0.25	0.46%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.0000055	0.0011	−0.0025	−0.0028	0.00027	0.00068	0.00012
70	−0.0027	0.00045	−0.0018	−0.0018	−0.000002	−0.0000019	−0.00008

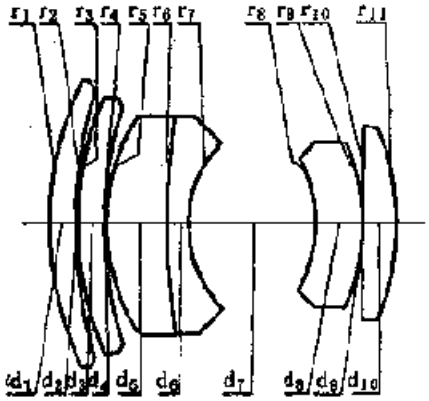




编号: 01-00-118

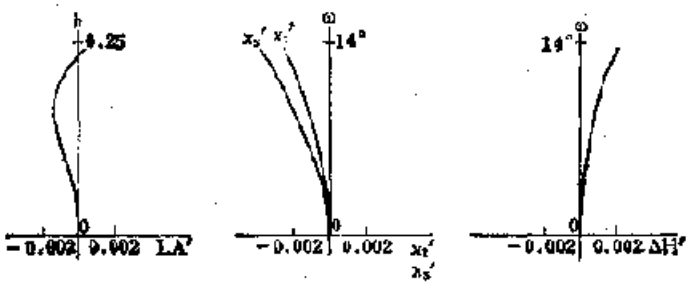
六片式改型高斯摄影物镜

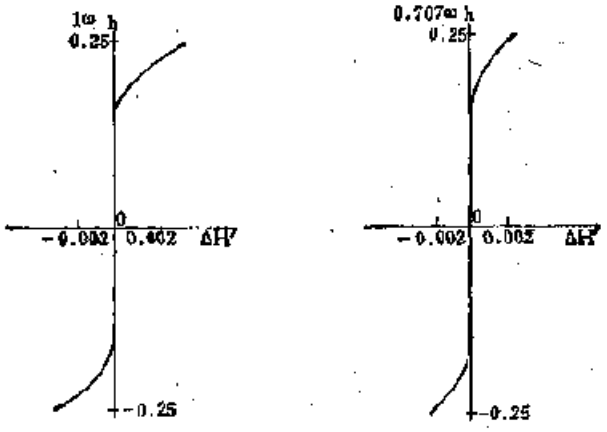
E. F. L＝1.0　　B. F. L＝0.4934　　FNo. ＝ 2　　F. A. ＝±14°



序号	r	d	n_d	ν_d	序号	r	d	n_d	ν_d
1	0.74046	0.05378	1.62041	60.29	7	0.21479	0.25122		
2	1.70593	0.00119			8	− 0.31907	0.10120	1.78472	25.51
3	0.68906	0.04167	1.62041	60.29	9	− 0.45729	0.00060		
4	1.03103	0.00119			10	3.16758	0.05715	1.62041	60.29
5	0.33074	0.11906	1.69100	54.80	11	− 0.60101			
6	1.27493	0.05001	1.66090	32.83					

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	OP(1ω)
	− 0.00070	− 0.00013	0.000047	0.00070	0.0011	0.24	0.84%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K'_{T1}	$K'_{To.7}$
100	0.00025	0.002	− 0.0035	− 0.0036	0.0011	0.00088	0.00007
70	− 0.0015	0.00079	− 0.0018	− 0.0022	0.00045	0.0061	−0.00007

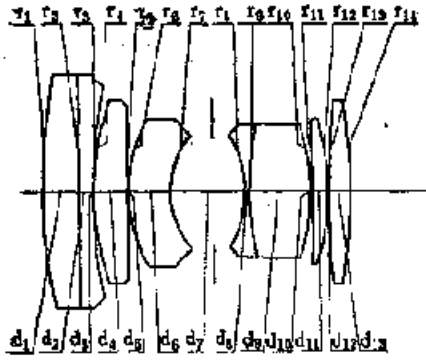




编号：01-00-119

摄　影　物　镜

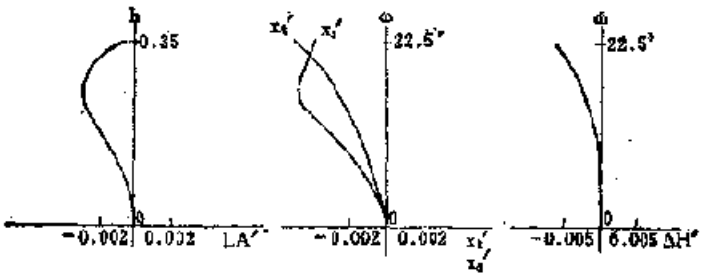
E. F. L＝1.0　　B. F. L＝0.6789　　FNo. ＝1.4　　F. A. ＝±22.5°

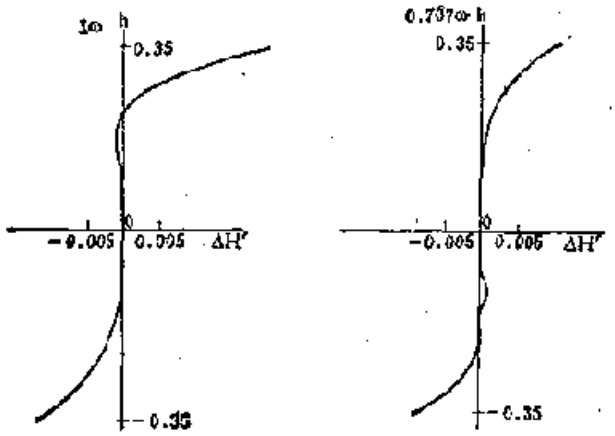


序号	r	d	n_d	ν	序号	r	d	n_d	ν
1	1.97579	0.11518	1.78443	43.77	8	−0.39700	0.05339	1.80518	25.46
2	−7.17419	0.08009	1.72151	29.23	9	1.03072	0.19990	1.78443	43.77
3	2.03690	0.01225			10	−0.59229	0.00095		
4	0.86394	0.13780	1.78443	43.77	11	−17.76637	0.06865	1.78443	43.77
5	2.73433	0.00341			12	−0.92290	0.00095		
6	0.49091	0.14512	1.80518	25.46	13	3.31300	0.05721	1.78443	43.77
7	0.33916	0.26299*			14	−2.16591			

0.26299* − 0.13000 + 0.13299

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.0023	0.00064	0.00095	0.0045	0.0046	0.41	−1.5%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'\ x_s'$	K_{T1}'	$K_{To.7}'$
100	−0.0004	−0.0062	−0.0052	−0.0042	−0.0008	0.0018	−0.0005
70	−0.0028	−0.0025	−0.0025	−0.0050	−0.0028	0.0008	0.0002

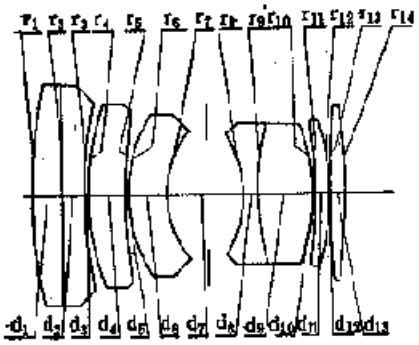




编号：01-00-120

摄　影　物　镜

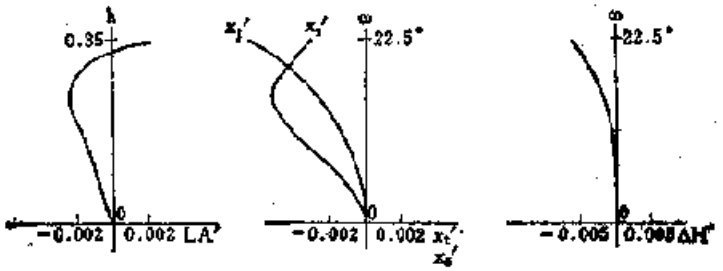
E. F. L＝1.0　　**B. F. L＝0.6753**　　**FNo. ＝1.4**　　**F. A. ＝±22.5°**

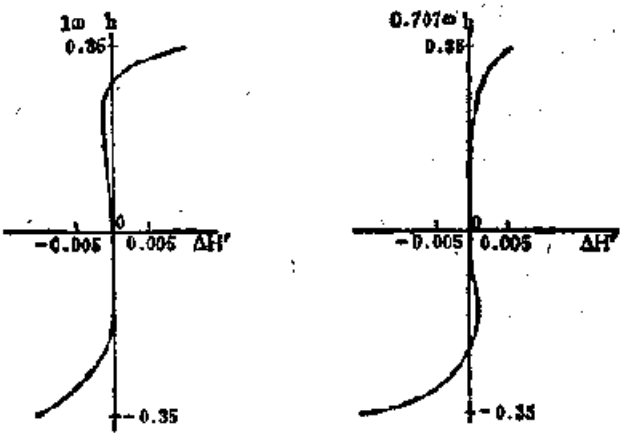


序号	r	d	n_d	v	序号	r	d	n_d	v
1	2.11494	0.12622	1.78443	43.77	8	-0.38985	0.02867	1.80518	25.46
2	-6.13521	0.05737	1.72151	29.28	9	1.20862	0.21037	1.78443	43.77
3	1.60543	0.00191			10	-0.87370	0.00191		
4	0.93127	0.12239	1.78443	43.77	11	-8.18072	0.06885	1.78443	43.77
5	3.21568	0.00191			12	-0.87919	0.00096		
6	0.46674	0.15299	1.80518	25.46	13	3.03031	0.08602	1.78443	43.77
7	0.33282	0.28304*			14	-2.20895			

0.28304* = 0.18000 + 0.10304

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1∞)
	-0.0024	0.00093	0.00073	-0.0043	-0.0046	0.41	-1.4%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	0.0021	-0.006	-0.0062	-0.0032	-0.0029	-0.006	-0.0014
70	-0.0023	-0.0025	-0.0026	-0.0048	0.0021	-0.0054	-0.00047

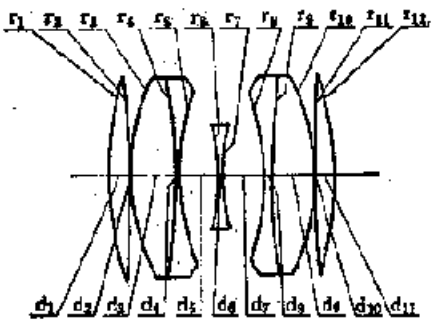




编号：01-00-121

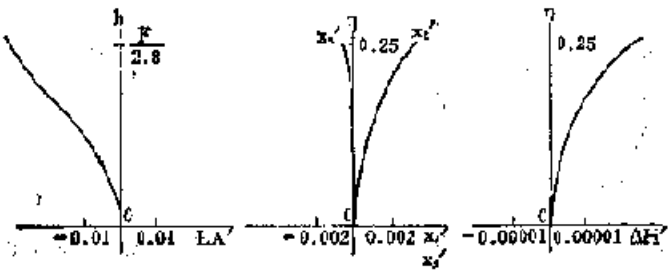
物　　镜

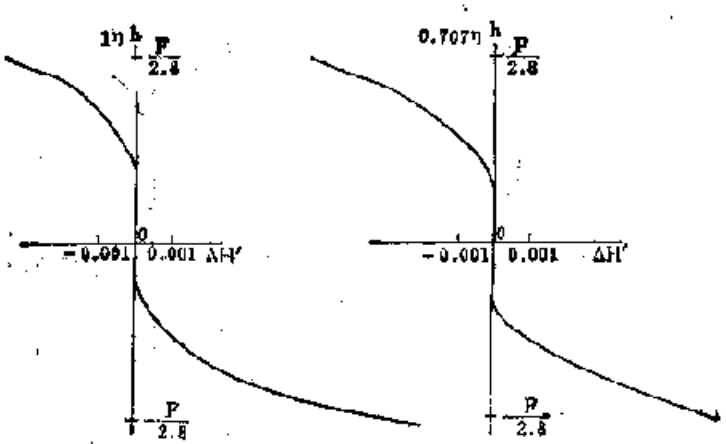
E.F.L=1.0　　B.F.L=　　FNo.=2.8　　F.A.=



序号	r	d	n_d	ν	序号	r	d	n_d	ν
1	0.85427	0.05664	1.720	50.3	7	0.63219	0.10456		
2	−3.1321	0			8	−0.72631	0.10743	1.613	36.9
3	0.59031	0.12025	1.613	59.3	9	1.7723	0.12025	1.613	59.3
4	−1.7723	0.01743	1.613	36.9	10	−0.59031	0		
5	0.72631	0.10456			11	3.1321	0.05664	1.720	50.3
6	−0.63219	0.01742	1.613	36.9	12	−0.85427			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	III	$Q^2(1\omega)$
	−0.0029	0.00037	0.00012	−0.00014	0.0000097	0.126	−0.019%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T3.7}'$
100	−0.033	0.000024	0.0034	−0.00023	0.0037	0.0018	0.0013
70	−0.02	0.000009	0.0017	−0.00015	0.0018	0.0012	0.0009

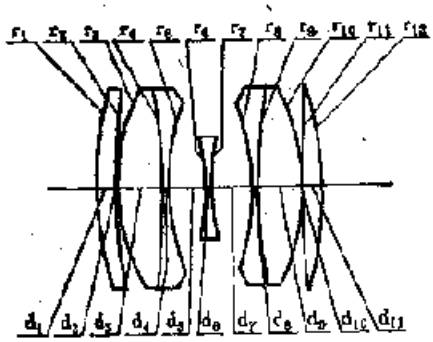




编号. 01-00-122

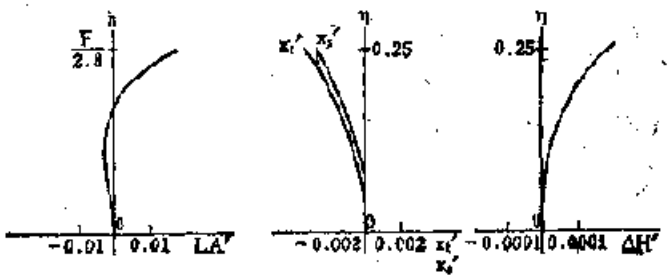
物　　镜

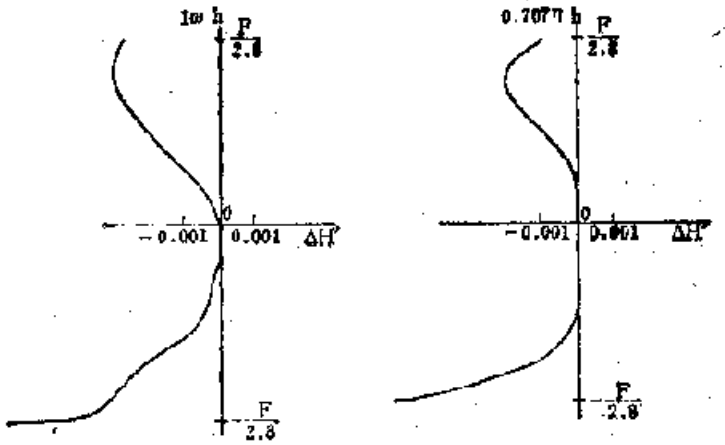
E. F. L＝1.0　　B. F. L＝　　FNo. ＝2.8　　F. A. ＝



序号	r	d	n_d	ν	序号	r	d	n_d	ν
1	0.63532	0.03698	1.720	50.3	7	0.45604	0.02776		
2	23.0321	0			8	−0.72446	0.01743	1.613	36.9
3	0.63321	0.14622	1.613	59.3	9	0.64629	0.17042	1.613	59.3
4	∞	0.01743	1.613	36.9	10	−0.58913	0.00908		
5	0.70192	0.06061			11	1.33561	0.23218	1.720	50.3
6	−1.04029	0.02184	1.613	36.9	12	−1.31201			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00051	−0.00037	−0.0000079	−0.00012	0.000053	0.15	−0.12%
h 或 ω%	LA′	ΔH′	x_c'	x_s	$x_s'-x_s'$	K_{T1}	$K_{T0.7}'$
100	0.017	0.00018	−0.0033	−0.00293	−0.0004	−0.004	−0.002
70	0.00012	0.00006	−0.00169	−0.0015	−0.00019	−0.003	−0.0014

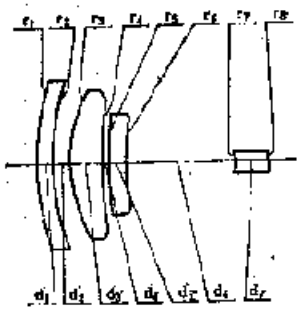




编号：01-00-123

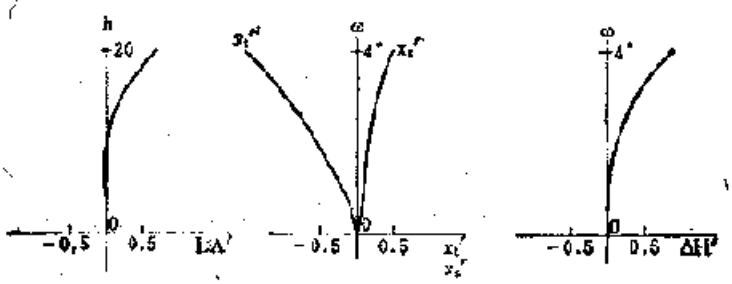
红 外 远 摄 物 镜

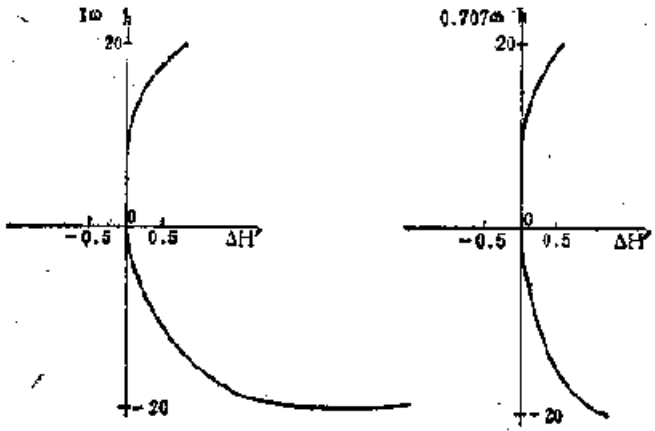
E. F. L＝100　　B. F. L＝1.48　　FNo. ＝2.5　　F. A. ＝±4°



序号	r	d	n	v	序号	r	d	n	v
1	66.04	4.6	3.42		5	193.7	4.9	4.02	
2	61.72	5.0			6	72.0	30.0		
3	41.60	8.6	3.42		7	− 7.92	9.3	4.02	
4	118.6	2.05			8	−26.66			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.0047	0.082	−0.080	0.12	0.25	7.4	11%
h或ω%	LA′	ΔH′	x_1'	x_2'	$x_1'-x_2'$	K_{T1}'	$K_{T0.7}'$
100	0.69	0.83	−1.55	0.49	−2.05	2.5	0.5
70	0.14	0.26	−0.79	0.28	−1.07	0.8	0.28

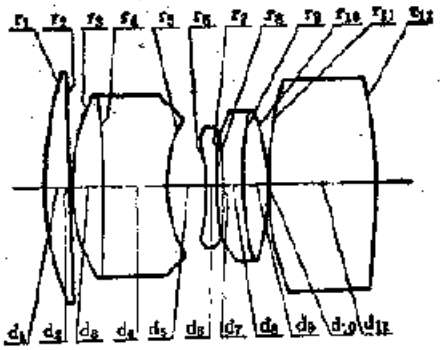




编号：01-00-124

透　镜　系　统

E. F. L＝1.0　　B. F. L＝　　FNo. ＝ 2　　F. A. ＝ ±20°



序号	r	d	n_d	ν	序号	r	d	n_d	ν
1	0.9144	0.0700	1.6910	54.8	7	1.3921	0.0165		
2	−20.559	0			8	−1.5815	0.0618	1.7484	27.8
3	0.5288	0.0486	1.6258	35.7	9	1.2955	0.0676	1.6910	54.8
4	−2.3553	0.1794	1.6484	27.8	10	−0.5566	0		
5	0.3930	0.1097			11	0.9260	0.3016	1.6910	54.8
6	−0.5513	0.0300	1.5097	64.4	12	−1.5488			

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.0019	−0.00033	−0.000044	−0.0034	0.0029	0.32	2.8%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_s'-x_s'$	K_{T1}	$K_{Fv.7}$
100	−0.01	0.009	−0.03	−0.013	−0.018	−0.00091	−0.00028
70	−0.0057	0.0028	−0.013	−0.0098	−0.0032	−0.002	−0.00085